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M E M O I R

OF A

MAP OF HINDOOSTAN. &c.

TO
SIR JOSEPH BANKS, BART.
PRESIDENT OF THE ROYAL SOCIETY, &c. &c.

THIS ATTEMPT
TO IMPROVE THE GEOGRAPHY OF INDIA,
AND THE NEIGHBOURING COUNTRIES,

IS INSCRIBED,

BY HIS MUCH OBLIGED, AND

FAITHFUL FRIEND AND SERVANT,

J. RENNELL.

London,
1st March, 1788.

CHRONOLOGICAL TABLE OF EMPERORS, who have reigned in HINDOOSTAN, since the GHIZNIAN CONQUEST.

GHIZNIAN Emperors.

Began his
Reign A.D.

		Began his Reign A.D.	Mahomed IV.	}	1389
* Mahmood I.	-	1000	Abu-Bicker		
Mahomed I.	-	}	Mahmood III.	}	1393
Musafod I.	-		1028		
Musafod	-	1041	Dynasty of the SEIDS.		
Musafod II.	-	}	Chizer	}	1414
Ali	-		1051		Mubarick II.
Reschid	-	}	Mahomed V.	}	1433
Feroch-Zaad	-		1052		Alla II.
Ibrahim I.	-	1056	Dynasty of LODI.		
Musafod III.	-	1098	Beloli	-	1450
Arfilla	-	1115	Secunder I.	-	1488
Byram I.	-	1118	Ibrahim II.	-	1516
Chufero I.	-	1152	MUGUL or MUNCUL Emperors.		
Chufero II.	-	1159	Baber	-	1525

GHORIAN or GAURIAN Emperors.

Mahomed II, or Mahomed	1184	Humaioon	-	1530
Ghori				

PATAN or AFGHAN Emperors.

Cuttub.	-	-	1205	Selim	-	-	1542
Eldoze	-	-	} 1210	Mahomed VI.	-	-	1545
Aram	-	-		Ibrahim III.	-	-	1552
Altumsh or Itumsh	-	-					

MUGUL Dynast restored.

Ferofe I.	-	1235	Humaioon	-	1554
Sultana Rizia, Empress	-	1236	Acbar.	-	1555
Byram II.	-	1239	Jehanguire	-	1605
Musafod IV.	-	1242	Shah Jehan	-	1628
Mahmood II.	-	1245	Aurangzebe, or Allumguire I.	-	1659
Balin	-	1265	Bahader Shah	-	1707
Keikobad	-	1286	Jehaunder Shah	-	1712
Ferofe II.	-	1289	Ferokfere	-	1713
Alla I.	-	1295	Ruffieh-ul-Dirjat	-	} 1717
Omar	-	1316	Ruffieh-ul-Dowlah	-	
Mubarick I.	-	1317	† Mahomed Shah†	-	1718
Tuglick	-	1321	Ahmed Shah	-	1748
Mahomed III.	-	1325	Allumguire II.	-	1753
Ferofe III.	-	1351	Shah Aulum	-	1760
Tuglick II.	-	1388			

* He began his reign in Ghizni, A. D. 977.

† Tamerlane's Invasion happened in this reign;

‡ And Nadir Shah's in this reign.



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Literary Society of Bombay
'M E M O I R'
OF A
MAP OF HINDOOSTAN;

OR THE

M O G U L E M P I R E:

With an INTRODUCTION, illustrative of the GEOGRAPHY
and PRESENT DIVISION of that Country:

And a MAP of the Countries situated between the HEAD
of the INDUS, and the CASPIAN SEA.

By JAMES RENNELL, F.R.S.

Late MAJOR of ENGINEERS, and SURVEYOR GENERAL in BENGAL.

———— The flow'r and choice
Of many Provinces from bound to bound,
From ARACHOSIA, from CANDAOR east,
And MARGIANA, to the HYRCANIAN Cliffs
Of CAUCASUS —————
From SAMARCHAND by OXUS, Temir's Throne,
To AGRA and LAHOR of Great Mogul,
Down to the GOLDEN CHERSONESE ———
And utmost Indian Isle TAPROBANE.

MILTON.

TO WHICH IS ADDED,

An APPENDIX, containing an Account of the GANGES and
BURRAMPOOTER Rivers.

L O N D O N:

Printed by M. BROWN, for the AUTHOR,
W. P. BEN, Corner of St. Martin's-Lane, Charing-Cross.
MDCCLXXXVIII.

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P R E F A C E.

AS almost every particular relating to HINDOOSTAN is become an object of popular curiosity, it can hardly be deemed superfluous to lay before the public an improved System of its Geography. Indeed, the flattering reception that was given to my former work, on the same subject, has, in a manner, made that an object of duty, which was originally an object of choice: for the public having condescended to receive the imperfect information afforded them in 1782, I felt an indispensable obligation on me, to render that information more perfect, whenever I might possess the means of accomplishing it. I hesitated only at the measure of subjecting them to an additional tax, so recently after the payment of the former one.

A large collection of materials of various kinds, having been added to my former stock, I have been enabled to produce a work of a more perfect kind than the former; and have therefore drawn it on a larger scale: the surface of the present map, exceeding that of the former one, in the proportion of 2 and a quarter to 1. The scale of this map, is one inch and a half to an equatorial degree: and

and the quantity of land represented in it, is about equal to one half of Europe. It is contained in four large sheets, which may either be joined together for the purpose of bringing the whole into one point of view, or bound up separately, in an Atlas; as may suit the fancy or convenience of the purchaser.

By the aid of a series of observations of latitude and longitude, taken by Capt. Huddart, along the Malabar coast, or western coast of India, the form of the peninsula, &c. is now brought very near to the truth: and the eastern coast, by the observations of Col. Pearse, is much improved, in the distribution of its parts, although its general form has undergone but little alteration. A measured line has also been drawn from the Bengal provinces to Nagpou, in the very centre of India: which has not only established an important geographical point, in a part where it was most wanted; but has been the means of furnishing a great deal of matter, towards filling up the vacant intervals on three sides of that point. Lastly, the war with Hyder Ally and Tippoo Sultan, his successor, has produced much new geographical matter, in various parts of the peninsula, by the marches of the different armies, and their detachments; particularly that of Col. Fullarton, in the southern provinces and Coimbatore. These are the most material acquisitions to the present map, as they, in effect regulate a considerable

P R E F A C E.

considerable part of the general outline, and determiné the proportions of some of the principal members of it. But of the kind of materials, which without affecting the general proportions of the map, serve the purpose of filling up the void spaces in it, there will be found very great abundance. In particular, Guzerat, and the Rajpoot provinces, have undergone very considerable improvement; as well as the Panjab country and Sind. The upper part of the course of the Ganges, to the cow's mouth, or cavern through which the Ganges passes; and the course of the Gogra river to its fountains; are both inserted from the work of M. Bernoulli. In short, additions and corrections are disseminated over the whole map: and in general, if we except the south part of Berar, the western part of the peninsula, and the countries bordering on the river Indus, and the Panjab, the map is filled up in such a degree, as to have no considerable blanks in it.

As Mr. Forster's route from India to Russia furnished some new ideas, and elucidated many former passages, I judged it proper to express his route to the Caspian sea, on a separate map; and at the same time to add to it, the countries contiguous to Hindoostan on the north and north-west; so as to include Samarcand, and the marches of Alexander from the borders of the Caspian sea to the river Iaxartes (the modern Sirr).

In the division of HINDOOSTAN into soubahs, &c. I have followed the mode adopted by the Emperor ACBAR, as it appears to me to be the most permanent one: for the ideas of the boundaries are not only impressed on the minds of the natives by tradition, but are also ascertained in the AYIN ACBAREE; a register of the highest authority. But for the lower parts of the DECCAN, and the peninsula in general, this standard being wanting, I had recourse to the best information I could get, which was not, indeed, of the most perfect kind: and therefore I directed my attention principally to the state of the modern divisions in those quarters, the impressing a clear idea of which, is one principal aim of the work.

It must be observed, that since the empire has been dismembered, a new division of its provinces has also taken place; by which means, some soubahs now form a part of the dominions of three or more Princes; and very few are preserved entire. These modern divisions are not only distinguished in the map by the names of the present possessors; but the colouring also is entirely employed in facilitating the distinctions between them. So that the modern divisions appear, as it were, in the *fore ground*; and the ancient ones in the *back ground*; one illustrating and explaining the other.

Considering the vast extent of India, and how little its interior parts have been visited by Europeans, till the

latter part of the last century, it ought rather to surprise us that so much geographical matter should be collected during so short a period; especially where so little has been contributed towards it by the natives themselves, as in the present case. Indeed, we must not go much farther back than thirty-five years, for the matter that forms the basis of this Map. And it must not be forgotten, that the East India Company have caused a mathematical survey to be made, at their own expence, of a tract equal in extent to France and England taken together; besides tracing the outline of near 2000 miles of sea coast, and a chain of islands in extent 500 miles more *.

In general, I have acknowledged in the course of the Memoir, the assistance that I have received from the different Gentlemen, who have obligingly furnished me

* Whatever charges may be imputable to the Managers for the Company, the neglect of useful Science, however, is not among the number. The employing of Geographers, and surveying Pilots in India; and the providing of astronomical instruments, and the holding out of encouragement to such as should use them; indicate, at least, a spirit somewhat above the mere consideration of Gain: but above all, the establishment of an office at home, for the improvement of hydrography and navigation, and their judicious choice of a superintendant for it, reflects the highest honour on their administration; and ought to convince us, that in a free country, a body of subjects may accomplish, what the State itself despairs even to attempt. For, however surprising it may appear, it is nevertheless true, that the first maritime nation in the world, has no good chart to direct its fleets towards its own coasts: nor even a criterion by which the public may be enabled to judge of the merit of any hydrographical production whatsoever. So that the soundings on the coast of Bengal, are better known than those in the British channel; of which, no tolerable chart exists, even at this day. During the late war, an East India ship owed her safety to the knowledge obtained from a chart of the mouths of the Ganges (made, and published by order of the Company) into one of which she escaped from two French cruisers, and afterwards came into the Hoogly river by the inland navigation. We had just become masters of the hydrography of America, when we lost the sovereignty of it. I hope no one will think ominously of our Indian possessions from this circumstance: but even if he does, he may make himself easy on the score of Great Britain.

with the materials, therein discussed. But there were other kinds of assistance afforded, for which no opportunities for acknowledgement occurred; such as the furnishing of useful hints, and correcting of errors, into which I had unavoidably fallen, through ignorance of local circumstances, or historical facts. The Gentlemen to whom I stand particularly indebted on this score, are, Mr. Francis Russell, Mr. David Anderson, and Mr. James Anderson*; Capt. Jonathan Scott, Mr. Wilkins; Mr. Middleton, Col. Popham, and the late Col. Camac; all of the Bengal establishment: Mr. Bensley, and Mr. Inglis, both of the East India Direction: Mr. John Sullivan of the Madras establishment, and Mr. Callander late of Bombay.

To Lord Mulgrave I am indebted for a copy of Mr. Forster's route from Jummoo to the Caspian sea: as well as for his Lordship's very ready communication of every species of information that could be of service to the work in question.

The routes of Mr. Smith, and of General Goddard, across the continent, from the Jumna river to Poonah and Surat, contain much useful matter; and have been the means of determining a number of geographical points.

* To Mr. James Anderson, I am, in particular, indebted, for the account of the derivation of the term MAHRATTA, and for that of the ancestry of Sevajee: as also for the subject matter of the notes that accompany those articles. And to him, and to his brother, Mr. David Anderson (each of whom, at different times, resided in a public Capacity with Madajee Sindia) I owe the most valuable part of the information, respecting the geographical division of the Mahratta States, and their tributaries.

A MS. account of the country of the Rajpoots, and other provinces, on the south, and SW of Agra; together with a map, both of them by P. Wendell*, were of very great use in describing the geography of those parts. And to render the MS. more valuable, there has been added to it, Mr. James Anderson's account of the changes that have taken place since that period, in consequence of Sindia's attacks, and negociations. The former was communicated by Col. Popham, and the latter by the Right Hon. Charles Greville.

Mr. Dalrymple, to whom I made my acknowledgments for the assistance afforded me, in the course of my former work, has, on the present occasion, not only procured for me every new material that fell under his notice, but instructed me how to procure others, and to draw information from various sources, that I was before ignorant of. To his valuable, and perhaps unequalled, collection of MS. charts, and of voyages and travels, I have also had access, on all occasions: and I wish to be understood to speak with the utmost sincerity, when I say, that without this assistance, my performance must have been extremely imperfect: or, in other words, that Mr. Dalrymple is intitled to the thanks of the public, in a positive degree; although my share of those thanks, may be only comparative.

* They were composed in the year 1779.

Although the new translation of the *ATIN ACBAREE* may have in part superseded the value of the extracts furnished me on the former occasion by Mr. Boughton Rouse, as the translation contains the whole subject in a connected form; and was also a task which none but a person who devoted his whole time to it, could effect; yet I am by no means unmindful of my former obligations to this Gentleman.

I have borrowed largely from M. D'Apres' *New Neptune Orientale*, for the sea coasts and islands: and also, though in a smaller degree, from M. D'Anville's maps of Asia and India published in 1751 and 1752. When it is considered that this excellent Geographer had scarcely any materials to work on for the inland parts of India, but some vague itineraries, and books of travels, one is really astonished to find them so well described as they are. It is with regret that I find myself obliged to differ in opinion from him concerning some positions in ancient Geography: I mean, that of Palibothra, in particular; and some few others. I have generally avoided all disquisitions of this kind, from a conviction of the general obscurity of the subject; and which even an intimate knowledge of the Indian languages would not enable me to clear up: for the similitude between ancient and modern names, is very fallacious, unless strongly corroborated by situation. But we cannot well refuse our assent to the opinion that Ptole-

my meant the *Suttulux*, or *Setlege* by the *Zaradrus*; the *Rauvee* by the *Rhuadis*, or *Adaris*; and the *Jenaub*, or *Chunaub* by the *Sandabalis*: because not only the names, but the positions have an affinity to each other. And yet this is a part of Ptolemy, which M. D'Anville discredits the most: but the reason was, that he was not himself acquainted with the true names of the rivers.

M. Buffy's marches in the Deccan afford *data* for fixing the positions of many capital places there; particularly Hyderabad, Aurungabad, Bilsnagur, and Sanore. But still there are plans of some of his marches wanting, which, could they be procured, would throw much light on the geography of the peninsula, and the Deccan: such as that from Pondicherry to Cuddapah, Adoni, and Hyderabad; that from Aurungabad to Nagpour; and the campaign towards Poonah. There are also existing, itineraries kept by very intelligent people, who have travelled from Pondicherry, direct to Delhi; but I know not how to set about procuring them. The public records at Goa; I am informed, contain a vast fund of geographical knowledge; and yet we are more in the dark, concerning the country on that side of the peninsula, than we are with respect to the centre of the Deccan.

Could the whole mass of geographical matter that respects India, (much of which, is probably in the hands of people who are ignorant of its value) be collected, I make

no doubt but that very complete maps of the several provinces of it, might be constructed, on scales large enough for any ordinary purpose.

It is intended by this Memoir to particularize the several authorities from whence the positions in the map are drawn; together with the manner of comparing them, in cases where they disagreed: as also, the manner of combining them, when more than one circumstance was required to establish a position. By this means, the authority for each particular, may be known to those who have curiosity enough to enquire after it: and the defective parts being thus pointed out, some future Geographer may be stimulated to seek for better materials. It may also tempt those who are already in possession of such materials, when they are apprized of their use, to contribute them to the public stock. Any communications of the kind will be thankfully received; and a proper use made of them,

There will be found, at the end of the work, two distinct Indexes; the one referring to the matter of the Memoir, the other to the names of countries and places in the map. The great waste of time occasioned by searching after particular situations, in maps of any extent, renders an index as necessary an appendage to a large map, as to a large book. For an index will in the first instance inform the reader whether the place sought after, be in the map, or not. If in the map, he is directed to
it

it with as much facility, as to a passage in a book, from an ordinary index. And if it be not there, although he may, indeed, blame the map for its deficiency, he must allow that it does not rob him of his time, by encouraging fruitless researches. There are also added, Tables of distances between the principal cities and towns of Hindoostan; and a small map, which brings into one view the respective positions of all the places mentioned in the tables.

As there does not exist at present, under any form whatsoever, a connected abstract of Indian history, it is a very difficult task for any reader, although possessed of inclination and leisure, to make himself acquainted with the principal events that form the groundwork of the history of that country: and particularly those which laid the foundation of the British power there. The many valuable tracts on this subject, that have appeared at different times, are so disjointed in point of chronology, that no idea of general history can be obtained from them; nor can the chasms be readily filled up. I have therefore been tempted, to compile a sort of chronological table of events, from the æra of the first Mahomedan conquests, to the final dissolution of the Mogul empire: and wish the reader to understand, that what is offered to his perusal under that form, is intended as a mere sketch; and that, chiefly with a view to render so dry and so unentertaining a subject as the geography of a country,

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somewhat more interesting, by accompanying it with an account of the principal events and revolutions, to which the country has given birth. I am but too conscious of the deficiency of this part of my performance. Besides, many of the events are related so differently by different people, who pretend to an equal knowledge of the circumstances of them, that it will be no matter of surprise if I am found (by those whose knowledge of eastern languages has gained them access to authentic records) to be often mistaken. In whatsoever case this may happen, I make no doubt but that I shall experience the exercise of their candour, as to the motives by which I was actuated, when I adopted any particular opinion, or mode of relation. The present disputes concerning some recent historical facts in this and the neighbouring countries, shew how extremely difficult it is to come at the truth, even when the researches after it, are made under every favourable circumstance that can possibly attend them.

C O N-

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EXPLANATION of the COLOURING of the MAP.

The Colours are used to point out the Boundaries of the principal States now existing in Hindoostan, and these are divided into six Classes, (*viz.*)

CLASS I.	The BRITISH POSSESSIONS; or those of the EAST INDIA COMPANY, distinguished by	- - -	RED.
II.	The POWERS in ALLIANCE with the COMPANY, by	- - -	YELLOW.
III.	The MAHRATTA States, by	- - -	GREEN.
IV.	The NIZAM's Territories, by	- - -	ORANGE.
V.	TIPPOO SULTAN's, by	- - -	PURPLE.
VI.	The SEIKS, by	- - -	BLUE.

The following are the Territories comprised in each Class.

I. BRITISH POSSESSIONS.—RED.

- 1 Bengal and Bahar, with the Zemindary of Benares.
- 2 Northern Circars.
- 3 Jaghire in the Carnatic.
- 4 Bombay, Salsette, &c.

II. BRITISH ALLIES.—YELLOW.

- 1 Azuph Dowlah. Oude.
- 2 Mahomed Ally. Carnatic.

- III. MAHRATTA

III. MAHRATTA States.—GREEN.

Light GREEN.

POONAH Mahrattas.	TRIBUTARIES.
1 Malwa.	1 Rajah of Jyenagur.
2 Candcish.	2 ——— Joodpour.
3 Part of Amednagur or Dowlatabad.	3 ——— Oudipour.
4 Vifiapour.	4 ——— Narwah.
5 Part of Guzerat.	5 ——— Gohud.
6 ——— Agra.	6 Part of Bundelcund.
7 ——— Agimere.	7 Mahomed Hyat. Bopalrol.
8 Allahabad.	8 Fatty Sing. Amedabad.
	9 Gurry Mundella, &c. &c.

Deep GREEN.

BERAR Mahrattas.	TRIBUTARY.
1 Berar.	Bembajee.
2 Oriffa.	

IV. NIZAM-ALLY, Soubah of the DECCAN.—ORANGE.

Golconda, Aurungabad, Beder, part of Berar, Adoni, Rachore, &c.

V. TIPPOO SULTAN.—PURPLE.

Myfore, Bednore, Canara, Cuddapah, &c. &c.

VI. SEIKS.—BLUE.

Lahore, Moulton, and the western parts of Delhi.

SMALL STATES, not distinguished by Colours.

- 1 Zabeda Cawn, now Golam Cawdir. Schaurunpour.
- 2 Jats.
- 3 Pattan Rohillas. Furruckabad.
- 4 Adjid Sing. Rewah, &c.
- 5 Bundelcund, or Bundela.
- 6 Little Ballogiftan.
- 7 Cochin.
- 8 Travancore.

For the ERRATA, see the last Pages of the Book.

I N T R O D U C T I O N.

HINDOOSTAN, has by the people of modern Europe, been understood to mean the tract situated between the rivers Ganges and Indus, on the east and west; the Thibetian and Tartarian mountains, on the north; and the sea on the south. But strictly speaking, the extent of Hindoostan is much more circumscribed, than these limits convey an idea of: and the name ought to be applied only to that part of the above tract, which lies to the north of the parallels of 21° or 22° . The Nerbudda river, is indeed, the reputed southern boundary of Hindoostan, as far as it goes; and the southern frontiers of Bengal and Bahar, compose the remainder of it. The countries on the south of this line, according to the Indian geographers, go under the general name of DECCAN: and comprise nearly one half of the tract generally known by the name of the Mogul empire. But as the term HINDOOSTAN has been applied in a lax sense to this whole region, it may be necessary to distinguish the northern part of it, by the name of Hindoostan *proper*. This tract has indeed the Indus, and the mountains of Thibet and Tartary, for its western and northern boundaries: but the Ganges was improperly applied as an eastern boundary; as it intersects in its course, some of the richest provinces of the empire: while the Burrampooter, which is much nearer the mark, as an eastern boundary, was utterly unknown. In this circumscribed state, the extent of Hindoostan *proper*, is about equal to France, Germany, Bohemia, Hungary, Switzerland, Italy, and the Low Countries, collectively: and the Deccan and peninsula, are
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about equal to the British Islands, Spain, and Turkey in Europe. I have here called the tract which lies on the south of the Kistna river, the peninsula; in conformity to general practice; although its form does by no means warrant it. The term DECCAN, which signifies the south, is applied (as before-said) in its most extensive signification, to the whole region that lies on the south of Hindoostan proper: I apprehend, however, that in its proper and limited sense, it means only the countries situated between Hindoostan proper, the Carnatic, the western sea, and Orissa: that is, the provinces of Candeish, Dowlatabad, Vissapour, Golconda, and the western part of Berar.

The term INDIA, by which this country, as far as it was known, is distinguished in the earliest Grecian histories, appears to be derived from HIND, the name given it, by the ancient Persians; through whom, doubtless, the knowledge both of the country and its name, were transmitted to the Greeks. We have the strongest assurances from Mr. Wilkins, that no such words as HINDOO, or HINDOOSTAN, are to be found in the Sanscrit Dictionary. It appears that the people among whom the Sanscrit language was vernacular, styled their country BHARATA*; a name, which is, I believe, quite novel to the ears of the learned in Europe. It is probable then, that the word HIND furnished that of INDIA, to the Greeks: and the termination STAN, signifying country in the Persian, is of more modern date: for we find it joined to many of the ancient Persian names of countries; as to Dahæ, whence Dahestan:

* See the notes to the *Hecetopades* or Fables, recently translated from the Sanscrit (or Sanscrit) by Mr. Wilkins, page 332. This gentleman has the merit of being the first European who acquired the knowledge of the Sanscrit language: which was that of ancient Hindoostan (or Bharata) but which ceased to be the vernacular tongue, soon after the Mahomedan conquest, in the 11th century. A few years ago, it was known only to the Pundits or learned Bramins; who religiously kept it from the knowledge of all but their own order: it being the sacred repository of their religious institutions, and mysteries; and which it was inconvenient to communicate to the vulgar, otherwise than through the medium of their own comments, and interpretations. The honour done Mr. WILKINS on this occasion, reminds us of the communications made to Herodotus, by the Egyptian Priests: and it is a fair inference, that the personal merit of both of these men, had a principal share in obtaining so distinguished a preference.

and Tapuri, is Taberi-stan; Corduene, Curdi-stan: together with many others: It has happened in the application of this name, *as* on similar occasions; that is to say, it has been applied, not only to the country originally designed by it, but to others adjacent to, and beyond it*: for the countries between Hindoostan and China, came to be called the *further* India; or India *extra Gangem*: whereas, Hind, or India, properly belonged only to the country of the people called Hindoos; or those of India *intra Gangem*. The name is as ancient as the earliest profane history extant: and this may serve among many other instances, to prove the high antiquity of the Persian language.

India has in all ages excited the attention of the curious, in almost every walk of life. Its rare products and manufactures, engaged that of the merchants; while the mild and inoffensive religion of Brama, and the manners inculcated by it, attracted the notice of philosophers. The structure of its language too, is remarkable; and has a claim to originality. It had been happy for the Indians, if they had not attracted the notice of a class of men more inimical to the happiness of mankind: for the softness and effeminacy induced by the climate, and the yielding nature of the soil, which produces almost spontaneously, invited the attacks of their more hardy neighbours; and rendered them an easy prey to every foreign invader. Hence we find them successively conquered by the Persians, Patans, and Moguls; and it is probable, that, like the Chinese, they have seldom had a dynasty of kings, from among their own countrymen. The accounts of 22 centuries ago, represent the Indians as a people who stood very high in point of civilization: but to judge from their ancient monuments, they had not

* The term *LYBIA* belonged at first only to the countries of Africa, that were colonized by the Greeks: but was afterwards applied by them to the whole continent. The Romans, in a similar manner, extended the name of *AFRICA*, which originally belonged only to the territories of Carthage, to the whole continent: or, at least, to as much as they knew of it. *ASIA* was applied at first only to *Natolia*; which took the name of *LESSER ASIA*, afterwards, when *ASIA* was applied to all the known parts of that continent.

carried the imitative arts to any thing like the degree of perfection attained by the Greeks and Romans, or even by the Egyptians. Both the Hindoos and Chinese appear to have carried the arts but to the point requisite for useful purposes; but never to have approached the summit of perfection, as it respects taste, or boldness of design.

The principal monuments of Hindoo superstition are found in the peninsula. Some have concluded from this, and from other circumstances, that the original seat of the Hindoo religion, was there. Others, perhaps with more appearance of probability, suppose it to have originated on the banks of the Ganges. Monuments of a superstition, apparently anterior to the Hindoo, exist in the caves of Salsette and Elephanta, two islands on the western coast of India: these consist of apartments of extensive dimensions, excavated from the live rock, and decorated with figures and columns.

India was but little known to the Greeks until Alexander's expedition, about 327 years before Christ. HERODOTUS, who wrote about 113 years before, appears to have heard but indistinctly, of any but the western part of it; and that only, by its being tributary to Persia. He informs us (Book IV.) that Darius Hystaspes had dispatched Scylax of Caryandra to explore the Indus, about 508 years before Christ; and that he departed from *Caspatorus* and *Pactya*, which were situated near the head of the Indus. Herodotus continues to say, that the Indians who inhabit towards the north, and border on these territories of *Caspatorus* and *Pactya*, resemble the Bactrians, (that is, their neighbours) in manners; and are the most valiant people of all India. The eastern part of India, says he, is rendered desert by sands: which description applies only to the country lying east of the Indus, and south of the PANJAB*: and this shews pretty evidently, that Herodotus's knowledge of India, as to particulars, extended no further, than to the above tract: and a collateral proof, is, that he does not mention

* The country watered by the 5 eastern branches of the Indus. See page 80 of the Memoir.

the Ganges, which became so famous, a century afterwards. Indeed, he tells us very plainly, that this sandy desert, was the extreme point of his knowledge eastward.

With respect to Scylax's discoveries, this is Herodotus's account. "Darius being desirous to know in what part, the Indus (which is the second river that produces crocodiles) runs into the sea, sent Scylax of Caryandra, with others of approved fidelity, to make the discovery. They departed in divers ships from *Casparyrus*, and the territories of *Paflya**; sailed down the river, eastward to the sea; and then, altering their course to the west, arrived in the 30th month, at that place, where the King of Egypt (Necho) had caused the Phenicians I mentioned before, to embark in order to surround the coast of Lybia (Africa). After this voyage, Darius subdued the Indians, and became master of that sea." Herod. Book IV. In another place, in the same book, he takes notice of some Indian nations, situated to the southward, very remote from the Persian conquests; and whose complexions were as black as Ethiopians: these ought to be the people of the peninsula. He had also learned that they killed no animals, but contented themselves with the produce of the earth; that they exposed those whom they deemed too ill to recover; lived chiefly upon rice; had horses of a smaller breed than their western neighbours; and that they manufactured their fine cotton wool into cloathing.

Now, after the above account of Scylax's expedition, can we give credit to the story of Alexander's supposing, that he had discovered the head of the Nile, when he was at the Indus? Are we to suppose that Aristotle concealed the books of Herodotus from his pupil? Or, on the contrary, ought we not rather to believe, that the matter of them was on his mind: and that the discoveries of Scylax, made within 180 years of his own time, and of a kind

* I conclude that *Paflya*, is the modern *Pekhely*. See page 108 and 116 of the Memoirs. Some have supposed *Casparyrus* to mean *Cashmere*: but this is improbable, from its situation, which is remote from the Indus.

that particularly interested him; were detailed to him; when we find them given incidentally in Herodotus?

The story of Alexander's surprise at seeing the tides in the Indus, appears to me equally improbable; seeing that the same Herodotus (Book II.) speaks very particularly of the tides in the Red sea; and describes them as being not only strong, but ebbing and flowing every day. (That most intelligent and ingenious traveller, M. Volney, informs us, that the tide ebbs and flows three feet and a half at Suez). Arrian takes no notice of the tides until Alexander's fleet had arrived near the mouth of the river. It is true, that the tide in the Indus does not go up so high, as in other rivers of equal bulk, and that run on so small a descent; but nevertheless, as the tide is perceptible at 50 or 60 miles above the river's mouth *, we may conclude that it could hardly escape the notice of Alexander and his people, in their voyage from Pattala to the sea: supposing they had not been apprized of the circumstance. Besides, Arrian's account of the coming in of the tide, which did so much mischief to the fleet, is descriptive of the bore, or sudden influx of the tide, in a body of water, elevated above the common surface of the sea; such as occurs in the Ganges, &c. He says, those ships that *lay upon the sand*, were swept away by the fury of the tide; while those that *stuck in the mud*, were set afloat again without damage. To the generality of readers, no reason will appear, why the circumstances of the ships should be different, in the mud, and on the sand: the fact is, that the bottoms of channels in great rivers, are muddy; while their shallows are formed of sand: and it is the nature of the bore, to take the shortest cut up a river; instead of following the windings of the channel: consequently, it must cross the sand banks it meets in its way; and will also prove more destructive to whatever it meets with aground, than what is afloat.

* The tide in the Indus is perceptible at about 65 miles above its mouth; according to the information of Mr. Callander, who resided a considerable time at Tatta, near the head of the delta of the Indus. In the Ganges the tides are perceptible at 240 miles up: and in the river Amazons, at 600.

It appears also from Herodotus (Book III.) that the parts of India bordering on the Indus, were subjected to regular tribute; but, totally reduced, under the Persian Government: for in enumerating the 20 Satrapies of Persia (under Darius Hystaspes) India is reckoned as one of them, and is rated the highest: it being assessed in the proportion of 4680 Eubæan talents of silver, out of 14,560, the whole annual revenue. To explain this, the author informs us, that the Indians were very numerous; and that the tribute charged upon them, was proportionably great. It is worthy of remark, that this tribute was paid in gold, whereas that of the other Satrapies was paid in silver. Much light is thrown on this circumstance, by the intelligence furnished by the ARIN ACBAREE; namely, that the eastern branches of the Indus, as well as some other streams, that descend from the northern mountains, yield gold dust. (See page 108 of the Memoir.) We are told on the same occasion, by Herodotus, that gold was estimated about that time, at the value of 13 times its weight in silver.

Alexander's expedition furnished the Greeks with a more extensive knowledge of India: although he traversed only the countries mentioned by Herodotus: that is, the tract watered by the Indus, and its various branches, and adjunct rivers. But the spirit of enquiry was now gone forth: and the long residence of Megasthenes, the ambassador of Seleucus, at *Palibothra*, the capital of the PRASII, furnished the Grecians with the principal part of the accounts of India, that are to be found in Strabo, Pliny, and Arrian: for Megasthenes kept a journal, and also wrote a very particular account of what he had seen and heard, respecting India in general, during several years residence: which account existed in Arrian's time. His embassy was about 300 years before our era.

The communication by land, between the Syrian empire and India, was dropt very early: for Bactria soon became independant: and by that means, the link of the chain that connected India with Syria, was broken. The Indian trade was about the same time

transferred from Tyre to Alexandria in Egypt, where it flourished under the auspices of the Ptolemies, until Egypt became a Roman province; and was continued on a more extensive scale under the Romans themselves: nor did it forsake Alexandria, until the *re-discovery* of the passage by the Cape of Good Hope. I shall take occasion to speak more fully concerning the particulars of the navigation from the Red sea to India, hereafter.

This traffick opened to the Egyptians and Romans a knowledge of the coasts and products of India; as we find by various notices, in the abovementioned authors; and in Ptolemy in particular. But considering how much the detail of the coasts was known to him, as is evident by his map (Tab. X. *Asiæ*) it is very extraordinary that the general form of it, should be so far from the truth: for he makes the coasts between the Indus and Ganges, to project only in a slight curve; whereas, they are known to form the sides of a triangle, whose perpendicular almost equals its base: Cape Comorin, being the apex of it. Whoever compares the proportional dimensions of India, found in Diodorus Siculus, Pliny, and Arrian, will find them tolerably just: and will be inclined to think that the worst set of ancient maps of India, has travelled down to us: and that Ptolemy, in constructing his map of that part, did not express the ideas of well informed people of his own time, on that subject. Pliny was about 60 years before Ptolemy; and Arrian about 20 years after Ptolemy: their accounts of the dimensions of India, were taken from *Eratosthenes* and *Megasthenes*.

Diodorus says that India is 32,000 stadia from north to south, and 28,000 from east to west: that is, the breadth is seven-eighths of the length.

Arrian gives the measures collected by Eratosthenes and Megasthenes: and says that "India is bounded on the west by the Indus; on the north, by a continuation of Mount *Taurus*, called in different parts, *Paro-pamisus*, *Emodus*, and *Himaus*; and on the south,

south, by the ocean, which also shuts up the eastern parts of it*. Few authors (says he) have given us any account of the people; *it is inhabit towards the mouths of the Ganges, where PALIBOTHTA is situated.*"

From the mountains at the head of the Indus, to its mouth, according to Eratosthenes, is 13,000 stadia; and from the said mountains, to the eastern sea, the extent is somewhat less: but as a huge tract of land runs out 4,000 stadia into the sea (meaning the peninsula) it may be reckoned 16,000 stadia. From Palibothra to the western extreme of India, measured along the great road, is 10,000 stadia: and the whole length (that is, from east to west) is 20,000 stadia. Arrian likewise gives the measures according to Megasthenes, who reckoned India 22,300 stadia from north to south; and 16,000 broad, from east to west; making that the breadth, which Eratosthenes reckons the length. We may observe, that Megasthenes's proportion, is, on the whole, the truest: for India is about 28 degrees of a great circle, in length, from north to south; or from the Indian Caucasus, to Cape Comorin: and about 20 in breadth, from the Indus to the mouth of the Ganges: and if we reckon from the most distant mouth of each river, it will be 22 degrees in breadth. This shews that Arrian had as just an idea of the proportional dimensions of India, as we had, 40 years ago: for we then reckoned it narrower than the truth, by at least two degrees. It is impossible to tell what length Megasthenes meant to express by a stade, as there appears to be so considerable a variation in the length of this itinerary measure, at different times: but by proportioning the number of stades, to the number of degrees, included in the above measures of India, by Megasthenes;

* Here it would appear, that Arrian followed the geography of Alexander; who supposed India to be the most eastern part of Asia; and that the shore of the ocean, from the mouth of the Ganges, took a quick turn to the north and northwest: for he supposed the Caspian lake to be a gulf of it. (Vide his speech on the banks of the Hy, hasis.) But Ptolemy, as we are given to understand, had, before the time of Arrian, described SERICA, and the borders of SINA: that is, the countries bordering on the west and NW of CHINA; the country of the ELYTHS; and part of Tartary, to the latitude of 50 degrees north.

there should be 800 stades in a degree of a great circle. M. D'Anville has at different times reckoned 1050, and 1100. I conceive it probable that Megasthenes gave the measures according to the *road distance*, from one extreme of the country to the other; and not according to the horizontal distance, or actual length, and breadth of the country. Part of the apparent differences, in the length of the stade, may arise from these different methods of reckoning distances.

Pliny gives the measures along the coasts between the mouth of the Ganges, and *Pattala* (or Tatta) in the mouth of the Indus, at 3320 miles (Roman miles I suppose, of 1000 paces.) The true measure of these coasts, rejecting the sinuosities, and attending only to the general form of it, is 40 degrees of a great circle. M. D'Anville allows 75 Roman miles to a degree; and by this rule, the above number of miles, will come out 44 degrees, instead of 40, the true measure. But if the pace be reckoned at 4 feet, 10,02 inches, English, there ought to be $78\frac{1}{2}$ Roman miles to a degree; and by this calculation, the 3320 Roman miles, will be 42° ; or within $\frac{1}{11}$ part of the truth. Whichsoever of the two calculations may be adopted, it is clear that Pliny knew nearly the form of the peninsula; and that Ptolemy, who living at Alexandria, might be supposed to be in the way of obtaining the best information on the subject, was in truth, ignorant of the general form of it, although he knew so much concerning the particulars.

Arrian's Indian history, which is extremely curious, and merits more notice than it commonly meets with, shews us how very little change, the Hindoos have undergone in about 21 centuries, allowances being made for the effect of foreign conquests; which, however, have produced fewer changes here, than they could have done, any where else: for customs, which in every country, acquire a degree of veneration, are here rendered sacred, by their connexion with religion: the rites of which, are interwoven with the ordinary occurrences of life. To this, and to the seclusion from the
rest

rest of mankind, inculcated by the braminical religion, we are to ascribe the long duration of the Hindoo religion and customs; which are only to be extirpated, together with the very people, among whom they prevail: and which have been proof against the enthusiasm and cruelty of the Mahomedan conquerors; nay more, have taught a lesson of moderation to those conquerors; who at last saw no danger arising to the state, from a religion that admitted no profelytes.

We are at the first view surpris'd to find that Arrian, who professes to treat of India, should confine himself to the description of a particular part only; while he had authors before him, who had treated the subject at large. It may, however, be accounted for, in this manner, that he chose to follow those only, who had been eye-witnesses to what they wrote; not compilers: and it is pretty clear that his account of India, is meant chiefly to illustrate the history of his hero. The following particulars, selected from among others, will shew to those who are conversant with India, how nearly the ancient inhabitants, resembled the present. 1. The slender make of their bodies.. 2. Their living on vegetable food.. 3. Distribution, into sects and classes: and the perpetuation of trades in families. 4.. Marriages at seven years of age: and prohibition of marriages between different classes. 5. The men wearing ear-rings; parti-coloured shoes; and veils, covering the head, and great part of the shoulders. 6. Daubing their faces with colours. 7. Only the principal people having umbrellas carried over them. 8. Two-handed swords: and bows, drawn by the feet. 9. Manner of taking elephants; the same as in the present age.. 10. Manufactures of cotton, of extraordinary whiteness.. 11. Monstrous ants: by which the *Termites*, or white ants are meant; though exaggerated. (Herodotus Book III, also mentions the ants: and his account is more extravagant than Arrian's.) 12.. Wooden houses, on the banks of large rivers; to be occasionally removed, as the river changed its course.. 13. The *Tala* tree, or

Tal; a kind of palm. 14. The Banian (or Burr tree) and the Indian devotees sitting under them.

We may perceive, however, on a reference to Arrian, that in many of the above particulars, he had either been indistinctly informed, or else, mis-informed; as in the case of the Tal tree; the white ants (which he discredits, at the time he relates it) and the manner in which the people daub their faces. The wooden houses, are, as far as I know, peculiar to the side of the Indus; and are remarked to be so, in the Ayin Acbaree. Arrian informs us, that he took his account of India from Nearchus and Megasthenes. In the account of the wooden houses, it may be perceived that he followed Nearchus; who seeing them on the side of the Indus, concluded they were in use, every where else. As to Megasthenes, Arrian thought he had not travelled far over India; although farther than Alexander's followers. This opinion may serve partly to explain, why Arrian did not preserve the journal of Megasthenes, by inserting it in his history of Alexander; or in his account of India.

His geography of India relates chiefly to the northern parts, or those seen by Alexander and Megasthenes. And his catalogue of rivers, most of which are also to be found in Pliny, and among which we can trace many of the modern names, contain only those that discharge themselves into the Ganges or Indus: such as *Gainas*, the Gane; *Cossioanus*, Cosa, or Coss; *Sonus*, Soane; *Condachates*, Gunduck; *Sambus*, Sumbul, or Chumbul; *Agoramis*, Gogra; *Commenafes*, Caramnassa, &c. &c.

Of the different histories of Alexander that have travelled down to us, that by Arrian appears to be the most consistent; and especially in the geography of Alexander's marches, and voyage in the Panjab; which country, by the nature of its rivers, and by their mode of confluence, is particularly favourable to the task of tracing his progress. Diodorus and Curtius, had, or ought to have had, the same materials before them, as Arrian: that is, the journals or relations

relations of Ptolemy and Aristobulus; who as friends and companions of Alexander, had opportunities of being well informed. We may conclude also, that there were among the followers of Alexander, journalists of a very different stamp; and indeed, the experience of our own days, furnishes us with examples enough of that kind, to make it probable: and there are also to be found, compilers, who according to their tastes and dispositions, prefer the relation of the marvellous, to those of the sober and rational kind. Such as these, we may conceive Diodorus and Quintus Curtius to be; the latter particularly, under whose hand, every incident grows into a miracle or wonder. Arrian too, relates his wonders; but in such a manner, as not to commit himself: or, as if he meant rather not to withhold what he thought himself bound to communicate, than as if he believed them himself, or wished to inculcate a belief of them, in others.

It is to be regretted that Arrian did not preserve the journal of Megasthenes, as well as that of Nearchus. The loss of Batn's, or Biton's book, which contained the geography of Alexander's marches, is also to be regretted. It existed in the time of Pliny, who quotes him: but I think, if Arrian had seen it, he would have been more particular in his geography, in certain places; as he ordinarily, studies to be. Certainly, Arrian had not read Herodotus attentively: otherwise he would not have passed over in silence, the voyage of Scylax, down the Indus; nor represented his hero, as being ignorant of so curious a fact as the tides must have appeared, to those who read the same book. But that he had read part of Herodotus, is evident by his quoting his opinion, respecting the delta of the Nile; and by an allusion to his account of the ants that dug up gold, in India, &c.

There is no reason to doubt that the Hindoo or Braminical religion was universal over Hindoostan and the Deccan, before the time of Alexander's conquest, if we regard the notices afforded by Herodotus and Arrian. Nor is it more extraordinary that one religion should

should prevail over India, although composed of distinct governments, than that the Christian religion should prevail over a larger tract in Europe; or the Mahomedan over a still larger tract in Europe, Asia, and Africa. But although there might be an universality of religion, there were, as the learned well know, many distinct languages: and history, both ancient and modern, gives us the most positive assurances, that India was divided into a number of kingdoms or states, from the time of Herodotus, down to that of Acbar. Not only Herodotus, Diodorus, Pliny, and Arrian, are positive, as to this point; but even Abul Fazil, who composed a history of the Indian provinces, in the reign of Acbar, in the 16th century. It is probable, that the almost universality of religion, and the union of so large a portion of this vast region, under the family of Tamerlane (particularly under Aurungzebe) has occasioned an idea, though a very erroneous one, that the Mogul empire, so called from the Mogul (or Mongul) dynasty, or that of Tamerlane, was always under one head.

But whatever kind of division may have taken place in the rest of Hindoostan, there appears to have been, generally, a large empire or kingdom, which occupied the principal part of that immense valley or plain, through which the Ganges takes its course: the capital of which has fluctuated between Delhi and Patna, as the limits of the empire have varied. That such a one does not exist at present, is probably owing to the Bengal provinces being in the hands of foreigners: but if we consider the union of interests between Bengal and Oude, the case is not essentially altered. Leave matters to their natural course, the whole valley will form one state again. The kingdom I speak of, was that of the PRASHI and GANGARIDÆ, in the times of Alexander and Megasthenes: and which was very powerful, as appears by the strength of its armies, and the number of elephants trained to war. It seems to have extended westward to the Panjab country; and if *Palibothra* stood on the site of Patna, as late accounts seem to render probable (see page

50 of the Memoir) we may suppose that it included at least, part of Bengal. In effect, the kingdom of the Prasii could not well be of less dimensions than France : and the state of it (according to Arrian) was rich, the inhabitants good husbandmen, and excellent soldiers ; governed by nobility, and living peaceably ; their rulers imposing nothing harsh, or unjust, upon them. Those who are fonder of contemplating the silent happiness of a whole people, than of tracing the steps of a conqueror, will be gratified on reflecting that Alexander stopt short, on the borders of the country above described.

The trade from the western world to India, which has ever enriched those who have carried it on, has often changed hands, and been turned into different channels. A passion for Indian manufactures and products, has actuated the people of every age, in lower Asia, as well as in the civilized parts of Europe : the delicate and unrivalled, as well as the coarser and more useful, fabricks of cotton, of that country, particularly suiting the inhabitants of the temperate regions, along the Mediterranean and Euxine seas. To this trade, the Persian and Arabian gulfs, opened an easy passage ; the latter particularly : as the land carriage between the Red sea and the Nile ; and between the Red sea and the Mediterranean, took up only a few days. It is highly probable, and tradition in India, warrants the belief of it, that there was from time immemorial, an intercourse between Egypt and Hindoostan ; at least, the maritime part of it : similarity of customs in many instances (as related of the ancient Egyptians, by Herodotus, and which can hardly be referred to physical causes) existing in the two countries. The intercourse, we may conclude, was carried on, by sea ; if we consider the nature of the intervening countries, and the seat of the manufactures : and it might, moreover, be expected, that a nation so enterprising as to undertake the circumnavigation of Africa (as there can be no doubt, the Egyptians did, under the Pharaohs) would scarcely leave unexplored, the coasts of a sea, so much

nearer; and which, from the regularity of the periodical winds, was so easy of access. Whether Solomon's profitable traffick included that of India, there are, I believe, no means of determining; but it appears highly probable that it did: as also that the *voyages of three years*, made by the ships that arrived at *Tarshish* (Tarfus, in Cilicia) were to the remote parts of Africa. We must carry in our minds, this fact, that Solomon's fleets were dispatched from the ports of the Red sea, as well as from those of the Mediterranean: David's conquest of Idumea (Edom) giving him possession of the ports in the north-eastern branch of the Red sea: that is, Ezion-gaber, &c. Tyre was founded about two centuries and a half, before this period: and from the very flourishing state she was in, under Hiram, the cotemporary of Solomon, it may be concluded that her merchants possessed the greatest part of the trade of the known world, at that time; and the trade of the east among the rest, in all probability. Commerce being so ready a way to riches, it is no wonder that so enlightened a Prince as Solomon, should profit by the example of his neighbours: and avail himself of his situation, from the enlarged state of his kingdom, which extended from the Euphrates to the Red sea; and to the borders of Egypt (1 Kings, chap. 4. ver. 24: and 1 Chron. chap. 18. ver. 13.) and which opened to him, two of the great avenues to the east, by way of the Red sea, and the Persian gulf. M. Volney's idea, respecting the object that Solomon had in view, when he took possession of Tadmour, or Palmyra, is, in my opinion, no less probable, than ingenious: namely, to use it as an emporium of the East India trade, by way of the Persian gulf, and the course of the Euphrates. This was about 1000 years before our æra. But Solomon's trade, notwithstanding, was merely temporary: and reminds us of some feeble efforts, made in our own days, by an inland Prince, who (in this respect, like Solomon) possesses two ports situated in opposite shores of the continent; and who is constrained to borrow the mariners of the modern Tyre, as Solomon did those of the ancient.

Whether

Whether the Indian trade was carried on at the same time, by the Tyrians and Egyptians, as well as by the Jews, cannot now be ascertained; but I think it probable that it might; and that, both by the route of the Persian gulf, and the Red sea; as we have seen it, in our days. But whatever might be the mercantile state of Tyre, in the days of Solomon, we find it about a century after, establishing a colony at Carthage; and about three centuries after that, its greatness was proverbial. I mean, about the date of Ezekiel's prophecy concerning it.

When Tyre fell into the hands of Alexander (Before Christ 332, and about 260 after the time of Ezekiel) that city was in full possession of the Indian commerce. The route of their trade from India, was up the Red sea to *Eziongaber*; and thence across the deserts to *Rhinocorura*, a town on the Mediterranean, and on the common frontiers of Palestine and Egypt: both of which countries were then in the hands of the Persians. From Rhinocorura, the goods were carried by sea to Tyre, and circulated from thence. The destruction of Tyre by Alexander, and the consequent foundation of Alexandria, turned the trade into a new channel: or rather perhaps, returned it into its ancient one, Egypt. The Ptolemies, into whose hands Egypt fell, on the division of Alexander's empire, bestowed a fostering care on the new emporium, which also became the capital of the kingdom. Ptolemy Philadelphus constructed a canal from *Arfinoe* (near the present Suez) to the ~~Pelusiæ~~ branch of the Nile: and afterwards, possibly because of the tedious and dangerous navigation of the upper part of the Red sea, founded the city of *Berenice* on the western side of that sea, and nearly under the tropic (that is, 450 miles below Suez) from whence the merchandise was transported across the desert of Thebais, to Coptus on the Nile; and thence, down the stream of that river, to the neighbourhood of Alexandria; which thus became the centre of trade between the eastern and western world; and, of course, one of the most opulent cities in either. It would appear,

that under the Ptolemies, the Egyptians extended their navigation to the extreme point of the Indian continent, and even sailed up the Ganges to Palibothra.

Alexandria held its rank as an emporium, even after Egypt became a Roman province: and preserved it in a considerable degree, during the various revolutions that happened in the east*; until the *re-discovery* of the passage round the south point of Africa, about 300 years ago, turned the bulk of the Indian trade into an entire new channel; and from which it is not likely ever to be diverted.

Berenice continued to be the port of outfit for the Roman East India trade in the time of Pliny (A. D. 79) who details, in his sixth book, the account of the navigation to India; with many curious particulars relating to it: and among other matters, we may gather, that it was a complaint even in his time, that the trade to India, drained Europe of its riches. Pliny says, that it cost 50 millions of sesterces every year (at 1s. 3d¹, '3,275,000l.) and yet the trade is not described as being extended to every part of India. I should apprehend a mistake in this statement: as the prime cost of the cargoes brought into England, from India and China, in any one year, has been little above three millions, freight included: and one would not expect that the value of the goods imported by the Romans, was equal to that, imported from China and Hindoestan, into England.

From Berenice it was reckoned 30 days navigation, down the Red sea, to *Ocelis* (Gella) just within the strait of Bab el-Mandel. Another port was *Muxa* (Mocha) but *Ocelis* was reckoned the best, and most commodious for departure. From thence to *Muxiris*, the first port of merchandise in India, was 40 days sail: so that, as they left Berenice about midsummer, they might arrive in India in the latter end of August, when the violence of the S W monsoon was abated; and the coasting navigation, safe and easy.

* The Venetian trade to the east, was by the channel of the Red sea, and Alexandria.

Pliny does not forget to mention that they departed with the *west* wind: and these 40 days sailing, would be about 15 days *run*, for an European ship, in the modern style of navigating: being about 1750 marine (the same as geographical) miles; on a straight course.

We are told that the first of these voyages were made by coasting the Arabian shore to the promontory *Syagrus* (Cape Rasalgate) and thence along the coast of Persia to the mouth of the Indus, &c. In the next age, a shorter and safer course was discovered: for from Cape Rasalgate, the ships made a direct course to *Zixerus*, a port in India; situated, as would appear by circumstances, on the northern part of the Malabar coast. After this, a direct course was made from the outlet of the Red sea to *Muziris*, as above related. It is probable, after all, that they coasted a great part of the Arabian coast, in order to reduce the length of that part of their course, that lay out of the sight of land: unless the habit of depending on the compass, has, in my idea, increased the difficulty of shaping a course without one.

Muziris is said by Pliny to have been an incommodious place of merchandise, because the shallowness of the port, or river's mouth, made it necessary to discharge or take in the cargo in small boats, at a distance from the emporium: and besides, there was danger from the pirates, at *Nitria*. Another port, more commodious and better stored with merchandise, was named *Barace* (or *Becare*) in the country of the *Niconidians*; and as the pepper of *Cottonara* was brought to this place in small boats, it may be concluded that Barace was within, or near to, the country of CANARA; which produces the best pepper in those parts, at the present day. After much study and investigation, I cannot apply to any particular spot, these ports of Muziris and Barace: for the Malabar coast abounds with ports of the above description: and it must be considered, too, that a shallow port for one of the Roman traders, which, in all probability, were smaller than ours, would be reckoned, in the present times, no port at all. The circumstances of the pirate

coast, and pepper country, however, confine us within certain limits: for, in the course to Muziris, the traders passed near the pirate's stations; and as these, by the lights which I have received from Pliny and Ptolemy, were nearly the same as the present (that is, between Bombay and Goa) I conceive the trading ports meant by Pliny, were situated between Goa and Tellicherry. The Periple of the Indian sea, and the geography of Ptolemy, throw some faint light on the subject.

Ptolemy's ideas are these: *Tyndis*, (going southward) succeeds *Nitria*; then *Muziris*; *Becare* (which is one of the readings of *Barace*) *Melcynda*, or *Nelcynda*; *Cottiaræ*; and then *Comaria*, or Cape Comorin; whose proper name is *Komrin* or *Komry*. And the Periple (my information is from M. D'Anville) enumerates in the same order, *Tyndis*, *Muziris*, and *Barace*, allowing 500 stadia between each, respectively. No three places, appear more convenient to this relative disposition, and to the circumstances of the pirate coast and pepper country, than Goa, Meerzaw, (vulgarly, Merjee) and Barcelore, or Bassinore. The first, namely, Goa, is just clear of the pirate coast: having Newtya, possibly the *Nitrias* of Pliny and Ptolemy (near which the pirates cruised on the Roman vessels in their way to Muziris) on the north of it. The second place, Meerzaw, or Merjee, has even some affinity in sound, with Muziris; and is situated on a river, and at some distance from the sea. And Barcelore, or Bassinore, which may possibly be *Barace*, is one of the principal pepper factories, at present: and therefore answers so far to *Barace*. *Nelcynda*, I take to be *Nelifuram*; and do not, with M. D'Anville, suppose *Barace* to be the port of *Nelcynda*, but a distinct place. It is said by Pliny, to be situated within the kingdom of *Pandion*; which is pretty well understood to be Madura: or to be comprised, at least, within the southern part of the peninsula; and therefore, the farther south we go for *Nelcynda*, the less we are likely to err. But even all this is conjecture, as far as relates to particular positions: nor is it of much conse-

consequence : for we are clear that the ports of merchandise, must be situated, in or near to the country of Canara, the *Cottonara*, or pepper country of Pliny : that is, between Goa and Tellicherry, as before observed.

The ships returned from the coast of India, about the month of December, with the north-east monsoon : and when entered into the Red sea, they had a south, or south-west wind : so says Pliny. The voyage was made much within the compass of a year : and the profits are stated to be immense : but the particulars of the cargoes are not recorded.

There are no notices in Pliny (as far as I know) concerning any voyages of the Romans, to the gulf of Bengal, or to the peninsula of Malay (the golden Chersonese) although it is clear from Strabo, who wrote before Pliny, that the Ganges had then been sailed up, as high as Palibothra. Ptolemy's geography, said to be composed about 60 years after Pliny, contains evident proofs that both of the Indian peninsulas had been explored : such is the mention of the pearl fishery, between Ceylon and the continent ; the diamonds found on the banks of the Sumbulpour river ; and the point from whence ships that traded to the Malay coast, took their departure (supposed to be Point Gordeware :) besides many names, that can hardly be misunderstood in the application of them ; as *Arçati*, the capital of the *Soræ* (or *Sora-mandalum*, from whence corruptly *Choromandel*) *Mesolia*, the district which contains Masulipatam ; the river Cauvery, under the name of *Chaboris*, &c. The peninsula beyond the Ganges is also described in Ptolemy, as far as Cochin China, or perhaps, to the borders of China, or *Sine*. (See M. D'Anville's *Antiquité Geographique de L'Inde*.) We may here observe also, by the way, that the islands scattered over the gulf of Bengal, in Ptolemy, and probably meant for the Andaman and Nicobar islands ; are most of them said to be inhabited by *Anthropophagi* : and this idea has also been adopted by the modern navigators. Other islands, which may be meant either

for

for certain parts of Sumatra, or for some of the islands that lie extended along the western side of it, are also branded with the same character: and we find by Mr. Marsden; that it is generally believed; that man-eaters exist in Sumatra, even at this day. I refer the *Bome Fortuna* island to the Great Andaman; and the 10 *Maniola*, to the northern Nicobars; being just the number of them: the 5 *Barasse*, and 3 *Sinde* islands, together with the 3 *Saba-dibé*; are the islands I allude to; as being either parts of Sumatra, or islands near it.

SKETCHES *of the History of HINDOOSTAN, since the Commencement*
of the MAHOMEDAN CONQUESTS.

THERE is no known history of Hindoostan (that rests on the foundation of Hindoo materials or records) extant, before the period of the Mahomedan conquests: for either the Hindoos kept no regular histories; or they were all destroyed, or secluded from common eyes by the Pundits. We may judge of their traditions, by that existing, concerning Alexander's expedition: which is, that he fought a great battle with the Emperor of Hindoostan, near Delhi: and though victorious, retired to Persia, across the northern mountains: so that the remarkable circumstance of his sailing down the Indus, in which he employed many months, is sunk altogether. And yet, perhaps, few events of ancient times, rest on better foundations, than this part of the history of Alexander (see Section III. of the Memoir) as appears by its being so highly celebrated, not only by his contemporaries, but by several of the most celebrated authors, for some centuries following. As for the notices above referred to, in Herodotus, Pliny, and Arrian, &c. they

they are rather transient views of the then state of Hindoostan, with a general account of manners and customs; than a history. Not but that these accounts are infinitely more pleasing and satisfactory, than a history would have been, if it contained nothing more than that of the Mahomedan conquests; that is, an account of battles and massacres; an account of the subversion of (apparently) one of the mildest, and most regular governments in the world, by the vilest and most unworthy of all conquerors; for such the Mahomedans undoubtedly were, considered either in respect to their intolerant principles; contempt of learning, and science; habitual sloth; or their imperious treatment of women: to whose lot, in civilised societies, it chiefly falls, to form the minds of the rising generation of both sexes; as far as early lessons of virtue and morality may be supposed to influence them.

The travels of Cosmas in the 6th century, and of the two Mahomedan travellers in the 9th, afford few materials for history: and but little can be gleaned from Marco Paulo, who crossed the peninsula, and went up the western side of it, to Guzerat, in the 13th century. Indeed, it is exceeding difficult to refer any incident related in this last author, to any particular country; as the geography of his travels is an enigma, for the most part.

It is chiefly to Persian pens that we are indebted for that portion of Indian history, which we possess. The celebrated Mahomed Ferishta, early in the 17th century, compiled a history of Hindoostan, from various materials; most of which, in the idea of Col. Dow (who gave a translation of this history to the world, about 20 years ago) were collected from Persian authors. The Mahabarut, an historical poem of high antiquity, and which I understand, Mr. Wilkins is now translating from the original Sanscrit (as he has already done an episode of it, under the title of Bhagvat Geeta) is supposed to contain a large portion of interesting historical matter: but if the father of Grecian poetry made so total a change in the story of Helen, in order to give a full scope to his imagination;

tion; what security have we that another poet may not mislead us in matters of fact; that is, in all that is valuable in history, considered as such? Mr. Dow was far from supposing that the Hindoos were destitute of genuine histories of their own country: he was not indeed acquainted with the Sanscrit language, in which they must be written, if at all: but founded his belief on the information of people on the spot. If the specimens of early Hindoo history given in the *Ayin Acharee*, are akin to those which Mr. Dow had in contemplation, I confess I can place no dependance on them. The most valuable part of Ferishta's history, he allows to be that, posterior to the first Mahomedan conquests, about the year 1000: and the following abstract of it is offered to the reader's notice, in order to fix in his mind, an idea of the successive changes in the state of the empire of Hindoostan; which from a pure Hindoo government, became a Mahomedan one; and continued to be so, under various dynasties of Monarchs, from Persia, Afghanistan, and Tartary; until the beginning of the present century: these Princes, moreover, adding to the original country of Hindoostan, all the other provinces situated within the Ganges. This unweildy state then dropping to pieces, anarchy succeeded; which in most parts of it, is scarcely composed at present: and which had nearly given rise to a new Hindoo empire, under the Mahrattas: but the intervention of foreign powers, prevented it. Lastly, one of those foreign powers seizing on the fairest provinces, and taking the lead in the empire, although removed from it; the distance of an actual route of fifteen thousand miles *!

Even after the commencement of the Mahomedan conquests, we find little more in Ferishta, save the histories of the empire of Ghizni (or Gazna) and Delhi; until the subjection of all Hindoostan, by the Patan Emperors in the beginning of the 13th century: for Hindoostan continued to be divided into a number of separate

* No part of the Roman empire, was distant from its capital, by the most circuitous route, more than 2800 miles.

kingdoms, each of which, required a particular history: and of which we know only such parts of it, as were interwoven with the history of the conquering country. Many of these old Hindoo kingdoms, bore the same names as the present soubahs (or vice-royalties) do; and had, probably, nearly the same limits. The history of the Deccan, is yet more obscure than that of Hindoostan: being brought into view later, as the Mahomedan conquests extended thither; and which began to encroach on it about the year 1300, although the entire conquest of it, was not made until late in the 17th century.

It may be observed that the first Mahomedan conqueror who made any establishments; that is, Mahmood, found little less difficulty in subduing the country, than the latter conquerors did; when so many kingdoms were united under the Patan Emperors: for these kingdoms, now become provinces, were too extensive, and composed of materials too discordant to unite properly: not to mention, that they were never long enough united, to produce the happy effects resulting from a long period of intercourse under one common head, and which assimilates the whole into one mass, like the French or British provinces. And this must ever be the case, in very extensive empires, where a delegation of great powers, and distant situation, prepares the provinces for independency, whenever the supreme government happens to be placed in weak hands. Hence, Hindoostan, even under the Moguls, may be considered only as a collection of tributary kingdoms; each accustomed to look no farther than to its own particular Viceroy; and, of course, ever in a state to rebel, when the imbecility of the Emperor, and the ambition of the Viceroy, formed a favourable conjuncture. To this must be attributed the little resistance that was made to the arms of Tamerlane, Baber, Humayoon, and Nadir Shah; although so many provinces were at those times united, under one Prince.

The first Mahomedan conquests that led to permanent establishments in Hindoostan, were those of the beforementioned Mahmood, Emperor of Ghizni: for I make a distinction between *these*, and the first *irruptions* of the Mahomedans; which left such slight traces behind them, as to be scarcely apparent. Among others, was that of the Caliph Valid in the first century of Mahomedanism. The empire of Ghizni was founded by Abistagi, Governor of Korasan (A. D. 960) who revolted from the King of Bucharja; whose ancestor, in his turn, had arisen to power, on the ruins of the Caliphate empire, about 87 years before. Ghizni consisted chiefly of the tract, which composed the kingdom of Bactria, after the division of Alexander's empire: that is, the countries lying between Parthia and the Indus; and south of the Oxus*. Ghizni (or Gazna) a city placed among the western sources of the Indus, and not far from the Indian Caucasus, was the reputed capital, though Balk or Balich claimed this honour, likewise.

Mahmood (commonly styled Sultan) was the third in succession from Abistagi: and was himself the son of Subuctagi, who appears to have meditated the conquest of the western part of India; and, like Philip, left his projects, as well as his kingdom, to his son. Subuctagi had carried his arms across the Indus, and ravaged the Panjab, but made no establishments: for we find, that at the time of his son Mahmood's invasion, a Prince of the Bramin race, or religion, named Jeipal, possessed the whole country, along the east side of the Indus, to Cashmere; and that he had the Kings of Delhi, Agimere, Canoge, and Callinger, for allies: so that it may be concluded, from the circumstance of the frontier provinces being under a Hindoo government; and from the state of the Hindoo religion, throughout the scene of Mahmood's conquests; that the Mahomedans, whatever ravages they might have committed, previous to this time, had not, as we have before observed,

* The reader is requested to consult the map at page 102, for the countries lying between the Indus and the Caspian sea.

formed any establishment in Hindoostan : but that the whole country was perfectly HINDOO, at the time of Mahmood's conquest. It must be observed, that I do not class the country of Cabul, or any of the provinces on the west of the Indus, as belonging to Hindoostan proper.

Before Mahmood began his first expedition into India, which was only three years after his accession, he extended his empire northward, by reducing Bucharra; from whose king, his ancestor had revolted, as has been observed above.

In A. D. 1000, he entered Hindoostan : but in the course of eight years, he made no further progress than Moultan. The people of Moultan, who were the *Malli*, and *Catheri* (that is, the Kuttry or Rajpoot tribe) of Alexander, must have preserved their ancient spirit, to be able to oppose, for so long a time, such formidable armies, headed by so furious an enthusiast. In 1008, we find all the Hindoo Princes, from the west of the Ganges to the river Nerbudda, united against him, for the common defence of their religion; the extirpation of which, was to Mahmood; an object equal, to that of the acquisition of territory, or subjects. It may be doubted whether the acquisition of subjects, the rational end of conquest, ever enters into the minds of barbarous conquerors; such as this Mahmood, Tamerlane, or Nadir Shah. One would rather suppose the contrary; or, at least, that they were totally indifferent about it, by their massacres and exterminations. The confederate Hindoos were defeated: and Mahmood's first essay towards effecting the downfall of their religion, was the destruction of the famous temple of Nagracut, in the mountains bordering on the Panjab country. His next expedition, being the sixth, was in 1011; when Tannasar, a more celebrated place of Hindoo worship, on the west of Delhi, experienced a like fate, with Nagracut; and the city of Delhi itself, was taken at the same time. In 1018, he took Canoge, and also destroyed the temples of Matra, or Matura, (the *Metbora* of Pliny) a city of high anti-

quity, and no less an object of religious veneration, near Agra. After this, turning his arms against the Rajpoots of Agimere, he found either them, or their country, which is full of mountains and fastnesses, too strong for him.

His twelfth expedition, in 1024, was fatal to the celebrated temple of Sumnaut, in the peninsula of Guzerat, adjoining to the town of Puttap, on the sea coast; and not far from the island of Diu, now in the hands of the Portuguese. His route was by Moultan and Agimere, the citadel of which he was compelled to leave in the hands of the enemy: and in crossing the desert, between it and Moultan, he hazarded the loss of his army, for want of water. The destruction of Hindoo temples, with their Priests and votaries, appears to have afforded this monster the highest delight. Nothing offends our feelings more, than the progress of destruction urged by *religious zeal*: as it allows men to suppose themselves agents of the Divinity; thereby removing those checks which interfere with the perpetration of ordinary villiany; and thus makes conscience a party, where she was meant to be a judge. Such also was Tamerlane: but to the alleviation of the misfortunes of the Hindoos, the enthusiasm of Mahomedanism had lost its edge, before the invasion of Nadir Shah. Had this predominated in his savage nature, the whole scene of his conquests, must have remained a solitary desert.

The city of Nehrwalla, the ancient capital of Guzerat, together with that whole peninsula, fell into the hands of Mahood; who died four years afterwards (1028) possessed of the eastern, and by much the largest part of Persia; as well as, nominally, of all the Indian provinces from the western part of the Ganges, to the peninsula of Guzerat; and from the Indus, to the mountains of Agimere: but the Panjab was the only part of it, that was subjected to regular government, under the Mahomedans; as being in the vicinity of the Ghiznian empire. As for the Rajpoots of Agimere, they still preserved their independance, among their rugged mountains,

tains, and close vallies, and not only them, but in a great measure, down to the present time; being in respect of Hindoostan, what the country of Switzerland, is to Europe; but much more extensive, and populous. From Mahmood to Aurungzebe, the Indian conquerors were contented with the nominal subjection of those hardy tribes: among whom, military enthusiasm, grafted on religious principles, is added to strength and agility of body; and this race is disseminated over a tract equal to half the extent of France. It goes under the general name of Rajpootana: and is the original country of the Mahrattas, who about 30 years ago, aspired at universal empire in Hindoostan.

The Ghiznian empire, subject to the same causes of decay, with other unweildy states of rapid growth, was in 1158, forcibly divided: the western and largest part, and which still retained the ancient name of the empire, being seized on by the family of the Gaurides (so denominated from Gaur, or Ghor, a province and city, lying beyond the Indian Caucasus) while the provinces contiguous to both shores of the Indus, remained to Chusero, or Cusroe, who fixed his residence at Lahore*. And even his posterity, were in 1184, driven out of their kingdom, by the Gaurides. The Mahomedans, thus become nearer neighbours to the Hindoos, by fixing their residence at Lahore, extended, as might be expected, their empire eastward; Mahomed Gori, in 1194, perpetrating, in the city of Benares, the same scenes as Mahmood had before done, at Nagracut and Sumnaut. Benares was regarded as the principal university of Braminical learning; and we may conclude that about this period, the Sanscrit language, which was before the current language of Hindoostan, began to decline in its purity, by the admixture of words from that of the conquerors; until the language of Hindoostan became what it now is: the original Sanscrit, preserved in their ancient writings, becoming a dead language. Such

* For the dates of the reigns of the Emperors of Hindoostan, the reader is referred to the Chronological Table, at the end of the Introduction.

mutations have taken place in every country, where the conquerors have been numerous enough, to effect it: the Saxon language was at the same period suffering from the Norman conquest, what the Sanscrit did from the Ghiznian. Mahomed Gori also carried his arms to the south of the river Jumna, and took the fortress of Gwalior, which then gave name to a kingdom that has since composed nearly the subah of Agra; he also reduced the eastern part of Agimere.

The death of this Emperor, in 1205, occasioned a new division of the Ghiznian empire, the Persian part remaining to Eldoze, and the Indian part to Cuttub, who founded the Patan or Afghan dynasty in Hindoostan. The Afghans originally inhabited the mountainous tract lying between India and Persia, or the ancient Paropamisus. Before the elevation of Cuttub, to the throne, he had carried his arms, under Mahomed Gori, into Agimere and Guzerat, Lahore was his capital, originally: but the necessity of fixing the imperial residence, nearer to the centre of the new conquests, occasioned him to remove to Delhi. It may be observed of the capitals of states, in general, that such as are neither emporiums of trade, nor meant as citadels in the last resort, are (as it were) attracted towards the quarter, from whence hostility is either intended, or expected.

The Emperor Altumsh, who succeeded to the Patan throne, in 1210, completed the conquest of the greatest part of Hindoostan proper. He appears to be the first Mahomedan that made a conquest of Bengal, the government of which was from this time bestowed on one of the reigning Emperor's sons. It was during this reign (1221) that Gengiz Cawn, among his extensive conquests (perhaps the most so, of any conqueror in history) accomplished that of the empire of Ghizni; putting an end to the dynasty of Charasm, which then occupied that throne: and driving before him, the unfortunate Gelali, son of the reigning Emperor; who swam the Indus to avoid his fury. Gengiz, however, left Hindoostan undisturbed.

About A. D. 1242, the Moguls, or Munguls, successors of Gengiz, who possessed, or rather over-run, the countries on the north-west of Hindoostan, made several irruptions into it; and Turmechirin Khan, is reported by Sherefeddin (the historian of Timur) to have carried his arms into the Doab; but without making any establishment. Ferishta takes no notice of the progress of this desultory conqueror, but only describes the inroads of the Moguls into the Panjab; which now frequently happened: although it was not till more than 150 years afterwards, that, under Timur, or Tamerlane, they penetrated to the centre of India! Ferishta describes also an irruption of Moguls into Bengal, by way of *Chitta* and Thibet, in 1244.

I have before observed, that the provinces of Hindoostan were held rather as tributary kingdoms, than as provinces of the same empire: and that they seldom failed to revolt, when a favourable opportunity offered. In 1265, Malwa regained its entire independence from the crown of Delhi; having gradually shaken off the yoke, laid on it by Cattub, in 1205: and the Rajpoots were on every occasion, notwithstanding their comparative vicinity to the capital, asserting their independency likewise. Of the state of the internal government of Hindoostan, a judgment may be formed, by the punishment inflicted on the Mewatti, or the Bahadditti tribe, which inhabit the hilly tract, within 80 miles of Delhi. In 1265, 100,000 of these wretches, were put to the sword; and a line of forts was constructed, along the foot of their hills. Rebellions, massacres, and barbarous conquests, make up the history of this fair country, which to an ordinary observer, seems destined to be the paradise of the world: the immediate effect of the mad ambition of conquering more than can be governed by one man; the whole empire being portioned out to rapacious Governors, who domineering over the governed, until their spirits were sufficiently debased; were at last able to persuade them, that their common interest lay in taking up arms, to render these Governors independent:

dant: and indeed, had it brought them nearer to the point of having a regular, permanent, government, this might be true: but, in fact, it only subjected them to a new conqueror; or to the punishment of rebellion from the former one. It would appear as if the warm climates, and more especially the open countries, situated within them, were destined to be the seats of despotism: for that the climate creating few wants, and the soil being productive without any great exertion; the inhabitants of it do not possess those energies, that in a cooler climate prompt mankind to investigate their natural rights, and to assert them. This, however, is a point that I shall not venture to decide on; although I believe it is a fact not to be disputed, that throughout the known parts of the world, despotism prevails most in the warm climates. The Patan, Mogul, and Tartarian conquerors, in Hindoostan and China, however hardy at first, have in a course of ages, sunk into the same state of effeminacy with their subjects: and, in their turn, have, with them, received a new master. Let those who are in the habit of complaining of the severity of northern climates, reflect, that whatever physical evils it may produce, it matures the great qualities of the mind; and renders its inhabitants pre-eminent among their species: while a flowery poet, or a more flowery historian, is the most eminent production of the tropical regions.

While the Kings of Delhi were prosecuting their conquests in the east and south of Hindoostan, the provinces on the west of the Indus, were, of course, neglected; although not avowedly relinquished. It might have been expected, that so excellent a barrier as the upper part of the Indus, and the deserts beyond Agimere, would have induced an Emperor of Hindoostan, to give up, of choice, all the provinces that lay on the west of this frontier: and the neglect of so prudent a conduct, occasioned the peace of the empire to be often disturbed; and ended in their being forcibly taken away at last; by the Moguls: who, not contented with their new acquisitions on the west of the Indus, crossed that river and
invaded

invaded the Panjab : and so formidable did they appear to Feroze II. that some tribes of them were permitted to settle in that country (A. D. 1292.) The reader will not forget the similar conduct of the Roman Emperor Valens, with respect to the Goths, who were permitted to cross the Danube, and settle in Thrace : and the similitude is the more striking, in that the Hindoostan empire was afterwards conquered by the assistance of the descendants of those Moguls. This Feroze II. was of the tribe of Chilligi or Killigi (from Killige, near the mountains of Gaur) but is, nevertheless, included in the Patan dynasty : the name Patah, or Pitan, being applied rather in a loose manner, to all the tribes bordering on the common frontiers of India, Persia, and the province of Balk : that is, the ancient province of *Paropamisus*.

In 1293 the Emperor gave into the scheme of attacking the DECCAN ; which, at this period, must be understood to mean the country lying generally to the south of the Nerbudda and Mahanada (or Cattack) rivers : a tract nearly equal in extent to what he already possessed in Hindoostan ; and which extended from the shores of the Indus, to the mouth of the Ganges ; and from the northern mountains, to Cattack, Sirong, and Agimere : the greatest part of Malwa, with Guzerat, and Sindi, being then independant. The riches of the King of Deogire (now Dowlatabad) one of the principalities or states of the Deccan, gave birth to this project ; and the projector was Alla, Governor of Gurrah, which nearly bordered on the devoted country. The covetousness of the Emperor made him embrace a proposal, which eventually involved in it, his own ruin ; for Alla afterwards deposed him, by means of that very plunder.

Alla's first expedition was attended with the capture of Deogire (or Deogur) and with it, an incredible quantity of treasure and jewels : with which, having increased his army, he deposed and murdered the Emperor. We cannot help acknowledging the justice of this punishment ; when we recollect the motives, on which

the expedition to the Deccan, was undertaken : and that moreover, the Emperor had been bribed by Alla, with part of the plunder, taken in a former predatory expedition to Bilah.

When Alla (who was the first of the name) had possession of the throne, in 1295, he began his plan of conquest, by the reduction of Guzerat ; which, while it continued independant, was, by its local situation, a strong obstacle to his designs on the Deccan. Next, he reduced Rantampour, and Cheitore, two of the strongest holds of the Rajpoots, in Agimere. This was the first time that Cheitore had fallen to the Mahomedans. In 1303, he also reduced Warangle, the capital of Tellingana, another principality of the Deccan ; and comprehending nearly the present country of Golconda. This, as well as Cheitore, was a city and fortress of vast extent, and population. But in the midst of these conquests, and probably the effect of them, the watchful and restless Moguls, from the opposite quarter, penetrated even to Delhi ; and plundered the suburbs of it.

In the following year, the remainder of Malwa, was conquered : and in 1306, the conquest of the Deccan was resumed, under Cafoor, the General of Alla ; who proceeded to the Deogur country, by the route of Baglana, which he reduced in his way ; and which Ferishta * calls the country of the Mahrattas. Cafoor not only carried his arms into Deogur (Dowlatabad) and from thence into Tellingana, but into the Carnatic likewise, in 1310. By the Carnatic, is here meant the peninsula in general, lying on the south of the Kistna river. It is not known, how far he penetrated, southward, but he was directed by Alla, to reduce MABER, which we understand to comprehend the southern part of the peninsula. His expedition appears to be rather predatory, than otherwise ; agreeable to the genius of his master, Alla. The quantity of treasure

* It is to be regretted that Col. Dow, did not give a literal translation of Ferishta, as a text ; and add his own matter, or explanations, in the form of notes. We should then have been able to distinguish the one from the other.

amassed, exceeds all belief. It was said that silver was found too cumbersome for the soldiery; gold being in such plenty. The historian observes on this occasion, as well as on the taking of Deogur, that the Princes of the Deccan had been for a great number of ages, amassing this treasure; so that their country had probably continued undisturbed all that time.

In 1312 Cafoor ravaged the northern part of the Deccan again, and laid Tellingana and the Carnatic under a tribute: but the entire conquest of those countries was not effected until about three centuries afterwards, under the latter Princes of the house of Timur. Alla died in 1326. At this period all Hindoostan proper was comprehended in the Patan empire (so called from the dynasty in possession of the throne): and the interior policy is said to be so well regulated, that strangers might travel throughout the empire, in perfect security.

Rebellions breaking out in Tellingana, in 1322, and 1326, it was again subjected; and the whole Carnatic ravaged from sea to sea. But under a succeeding Emperor, Mahomed III. the Princes of the Deccan assumed courage, and headed by Belaldeo, King of the Carnatic, they drove the Mahomedans entirely out of those countries; nothing remaining to them, save the fortrefs of Dowlatabad (or Deogur). About the same time (1344) the city of Bijinagur, corruptly called Bisnagar, was founded by the same Belaldeo. Mahomed, who appears to have been a weak Prince, lost much territory, also, by rebellions in Bengal, Guzerat, and the Panjab: mean while, he was occupied in attempting the conquest of China, but was repulsed on the frontier. It is probable, from circumstances, that he went by way of Assam. This Emperor also planned the absurd scheme of transferring the seat of government, from Delhi to Dowlatabad: and attempted it twice, but without success.

Feroze III. who succeeded in 1351, appeared more desirous of improving the remains of the empire, after the defection of Bengal

and the Deccan, that of extending it, by arms. Canals, and public works, for the improvement of agriculture, and of the inland navigation, were his favourite objects, during a reign of 37 years. (See the Memoir, page 72.) The Moguls made another irruption in 1357, and the time now approached, when a more serious one was to take place under Timur, or Tamerlane. After the death of Feroze, in 1358, rebellion and civil war, during a course of several years, prepared the empire for foreign subjection: and a minority, in the person of Mahmood III. who succeeded in 1393, brought matters to a crisis. During the confusions attendant on the state of a minority; in an empire which could with difficulty be held together, by a veteran despot, the historian remarks an unusual circumstance: two Emperors in arms against each other, residing within the same capital. In this state of things, Timur, who had already extended his empire over all the western Asia and Tartary, turned his arms towards Hindoostan in 1398. In the preceding year, he had sent his grandson Peer Mahomed, to reduce the Panjab, and Moultan; and in October, crossed the Indus himself; and joining his grandson near Moultan, his army proceeded in different divisions to Delhi, which submitted, without what may be properly termed, a battle. This inhuman monster, who had credit enough with a poet of the present century, to be brought on the stage, as a hero, possessing great and amiable qualities, obtained in Hindoostan, the title of "the destroying Prince:" and was truly worthy of it, from the numerous massacres and exterminations executed under his immediate direction! Timur staid in Delhi only 15 days: and then appears to have been on his return to the seat of his empire, when, hearing of a fortress in the Dooab, that had resisted the arms of a former Mogul invader (Turmecherin Khan) he marched towards it and took it. From thence he proceeded to the place where the Ganges issues out of the mountains, and where the Hindoos resort at certain seasons, in vast numbers, to pay their adorations to, and to purify themselves in that sacred

sacred stream. His object was the extermination of these inoffensive people, and he partly succeeded. From this place, turning to the north-west, along the foot of Mount Sewalick, he continued his massacres, though not without opposition, until he arrived on the frontiers of Cashmere. He spent little more than five months between the time of his crossing and recrossing the Indus; and appears to have paid more attention to seasons than Alexander did: as Timur chose the fair season for his expedition, whereas Alexander was in the field in the Panjab, during a whole rainy season (see Memoir page 101). Timur, however, may be said rather to over-run, than to subject, or conquer: for he did not disturb the order of succession in Hindoostan, but left Mahmood on the throne: reserving to himself the possession of the Panjab country only; and this, his successors did not retain long. His views were at this time, directed towards the Turkish empire; and this made him neglect India; which did not promise so plentiful an harvest of glory, as the other. During his life, which ended in 1405, he was prayed for in the mosques of Hindoostan, and the coin was struck in his name: but this might be more the effect of policy in the usurpers of Mahmood's throne, than the act of Timur. It does not appear from Ferishta, any more than from Sherefeddin, that this Prince carried much treasure out of Hindoostan, with him. But Nadir Shah's acquisition of the precious metals, at a later period, was great, beyond all ideas of accumulation, in Europe: and is only to be accounted for, by the influx of those metals from America, during that interval.

For the geography of Timur's marches, the reader is referred to the third section of the Memoir; and to the map.

If Hindoostan was in confusion before this invasion, it may be expected that on Timur's departure, matters became much worse. The death of Mahmood happened in 1413; and with him ended the Patan dynasty, founded by Quttub in 1205. The throne was then filled by Chizer, a Seid (that is, one of the race of the prophet

phet Mahomed) whose posterity continued in it, until 1450: when Belloli, an Afghan of the tribe of Lodi, took possession of it, on the abdication of Alla II. under whom all Hindoostan fell into separate governments; and a potentate, styled King of the East, whose residence was at Jionpour, in the province of Allahabad, became the most formidable, among them: while the King of Delhi, had but the shadow of authority remaining to him. The son of Belloli recovered a considerable part of the empire; and in 1501, made Agra the royal residence. It was during this reign, that the Portuguese first accomplished the passage to India, by the Cape of Good Hope: but as their connexions were entirely with the maritime parts of the Deccan; and a part of it that had ever been independant of Delhi, no notice of this event, is taken by Ferishta. The empire fell again into utter confusion, under Ibrahim II. in 1516; and this paved the way for the conquest of Hindoostan, by Sultan Baber, a descendant of Tamerlane and of Gengiz Kan; who reigned over a kingdom composed generally of the provinces situated between the Indus and Samarcand. Being dispossessed of the northern parts of his dominions, by the Uzbeks, he determined to try his fortune in Hindoostan, whose distracted situation flattered his hopes of conquest. His residence at this time was at Cabul, from whence he undertook his first expedition across the Indus, in 1518. After this, he made four others; and in the fifth (A. D. 1525) he defeated the Emperor of Delhi, and thus put an end to the dynasty of Lodi. It is said that Baber crossed the Indus, this last time, with only 10,000 chosen horse; the enemy's Generals, by their revolts, furnishing him with the rest of his army. In this, we have a fresh instance of the small dependance that the Hindoostan Emperors could have, on their Viceroys and Generals. Baber reigned only five years in Hindoostan; during which, his chief employment was the reduction of the eastern provinces. Nor did he relinquish his Persian provinces, by crossing the Indus. His son, Humaion, succeeded him in 1530; but the

the short reign of Baber, did not allow time enough to compose the distractions that had so long prevailed; or to exterminate the seeds of rebellion: for the intrigues of his brothers, and the open rebellion of Sheer Kan, drove Humaioon, although a Prince of considerable abilities, and great virtues, from his empire, in 1541. His flight towards the Indus, and his sojourn among the Rajpoot Princes of Agimere, furnishes a striking picture of royal distress. During his stay there, his son Acbar was born, whom we may reckon among the greatest of the Sovereigns of Hindoostan. The provinces on the west of the Indus were held by a brother of Humaioon. The usurper Sheer, did not long survive his new dignity; being killed at the siege of Cheitore in 1545: and was buried at Sasaram in Bahar, his original estate; in a magnificent mausoleum, which he had ordered to be constructed, during his life time: and of which, a drawing has lately been exhibited in this country, by Mr. Hodges. Sheer Kan was of Afghan origin; and held the soubahship of Bahar, when he rebelled: and at his death, his empire extended from the Indus to Bengal. He left his throne to his son Selim, but so very unsettled was the state of Hindoostan, that no less than five Sovereigns appeared on its throne, in the course of 9 years. In effect, there could not exist in the minds of the people, any idea of regular government, or regular succession: for there had scarcely ever been 12 years together, during the last, or the present century, without furnishing some example of successful rebellion. This induced a strong party in Hindoostan, to invite Humaioon back; and accordingly, in 1554, he returned, and met with but little resistance: but died in consequence of an accident, the following year. He was celebrated for the mildness and benevolence of his nature: and his return, notwithstanding the shortness of his reign, was a public blessing; as it was the means of seating his son Acbar quietly on the throne. When he was driven from his empire, by Sheer, he resided with Shah Tamasp, of Persia, who

who aided him in the recovery of it: and in the early part of his exile, he recovered possession of the provinces beyond the Indus.

Acbar was about 14, when his father died, in 1555. The reign of this Prince has been celebrated by the pen of the famous Abul Fazil, in a book called the *Acbar-namma*, or history of Acbar. The business of this sketch, being rather to give a sort of chronological table of events, than to aim at a circumstantial history, I shall not attempt to particularize the great events of this long and busy reign of 51 years: but refer the reader to the history of Hindoostan, by Col. Dow: in which, not only a full account of Acbar, but also of his descendants, down to Aurungzebe, will be found. As in the person of Baber, the line of Tamerlane first mounted the throne of Hindoostan: so in that of Acbar, the grandson of Baber, it may be said to be established. The conquest of their ancestor, about a century and a half before, had no share in effecting the present settlement. Baber, was in reality the founder of the Mogul dynasty; and from this event, Hindoostan came to be called the Mogul empire*.

The first years of Acbar's reign were employed in the reduction of the revolted provinces, from Agimere to Bengal; in which the great Byram, who had a share in recovering the empire for Hummaoon, was a principal actor. These conquests were secured in a manner very different from those, achieved by former Emperors: that is, by a proper choice of Governors; by wise regulations; by an unlimited toleration in religious matters; and by a proper attention to the propensities of the people: to all which, a long and vigorous reign, was peculiarly favourable. The Hindoos still formed the bulk of the people; even in those provinces, that, from their vicinity to the country of the conquerors, had been the most

* Properly speaking, the *MOGUL EMPIRE* was that, over which Tamerlane and his immediate successors reigned; and in which, India was not included. Custom, however, has transferred the name to the empire held by the descendants of Tamerlane, in Hindoostan and the Deccan.

frequently over-run : and experience had taught the Mahomedan conquerors, that the passive religion and temper of the Hindoos, would, if left to themselves, never disturb the established government. But the DECCAN was a stumbling block to the Mogul Emperors. In 1585, Acbar resolved on the attack of it, and soon after carried the war into Berar, while another army was reducing Cashmere, in an opposite corner of the empire. The Deccan appears at this time, to have been divided into the kingdoms or states of Candeish, Amednagar (or Dowlatabad) Golconda (or Bagnagur), and Visnapor. Berar and the Carnatic, each of which included several distinct governments, are not specified by the historian, as members of the Deccan : by which it would appear that they do not, in strictness, appertain to it. In the popular language of the times, there were reckoned to be four principalities in the Deccan : that is to say, the four first mentioned, above. Most, if not all of these, were at this time governed by Mahomedan Princes, although we are not in possession of any history of the conquests or revolutions, that transferred them from the Hindoos to the Mahomedans. At the time of Acbar's death, in 1605, no farther progress was made in the reduction of the Deccan, and the adjoining countries, than the taking possession of the western part of Berar, Candeish, Tellingana (a division of Golconda) and the northern part of Amednagar ; the capital of which, bearing the same name, was taken in 1601, after a long and bloody siege, and an unsuccessful attempt to relieve it, by the confederated Princes of the Deccan.

Acbar was the glory of the house of Timur. Hindoostan proper, had never, at any period since the first Mahomedan conquest, experienced so much tranquillity, as during the latter part of his reign : but this tranquillity would hardly be deemed such, in any other quarter of the world ; and must therefore be understood to mean a state, short of actual rebellion, or at least, commotion. Prince Danial, his eldest son, died just before him ; and Selim,

the next, in right of primogeniture, succeeded under the title of Jehanguire.

Jehanguire reigned about 22 years. Under him, the conquest of the Deccan was not lost sight of, though but faintly pursued. War was made on the Rajpoots, and the Rana, or chief Prince, brought to terms. The rebellions of the Emperor's son, Shah Jehan, embittered the latter part of his reign; and the influence of his mistress Noor Jehan, rendered his councils weak, and constrained his government. However, the provinces having been held together for near 70 years, the empire had acquired a degree of consolidation; and was not so liable to be shaken, as it would have been at some former periods, under the operation of similar events. It was in this reign, and in the year 1615, that Sir Thomas Roe was sent as the first English Ambassador to the Emperor of Hindoostan. The Portuguese, had by this time, acquired considerable settlements in Bengal and Guzerat; but only those in Guzerat, where they also possessed some extent of territory, attracted the notice of the court: and it is curious to observe what the author of the *Ayin Acbaree* says of them, about the year 1560. Speaking of the lands of Guzerat, he says, "By the *neglect* of the King's Governors, several of these districts are in the hands of Europeans." Ferishta, also, speaking of the site of an ancient Hindoo temple, near Diu, says that it was situated in the districts, that were subject to the "Idolaters of Europe."

Shah Jehan succeeded his father in 1627. The conquest of the Deccan was pursued with more vigour in this reign: and the plunders and devastations perpetrated there, occasioned most, or all of its Princes, to make submission, and acknowledge the Emperor, lord paramount. Golconda was in part, actually taken possession of: but Vissapour and the Carnatic, together with the regions of the Gauts, remained in the hands of their ancient possessors.

Candahar, a fortress situated on the common boundary of Persia, and of the Mogul provinces beyond the Indus, was, at this time,

a sub-

a subject of contention, between the two Monarchs of Persia and Hindoostan. The first serious quarrel between the Europeans (Portuguese) and Moguls, happened during this reign, 1633: when the Portuguese were expelled from Hoogly, in the Ganges. In 1658, the civil wars commenced between the Emperor and his sons; as well as between the sons themselves: which ended in the elevation of Aurungzebe, the youngest; after he had deposed his father, and murdered or expelled his three brothers. The account of these transactions may be seen at large, in Bernier and Dow: and is a very curious piece of history. In 1660, Aurengzebe (who took the name or title of Allumgire and was the first of that name) was in peaceable possession of the throne: and from that period, until the year 1678, there prevailed, throughout Hindoostan in general, the most profound peace that had ever, perhaps, been known: but the remainder of the Deccan, was still a *desideratum*; and Aurungzebe disdained to have any other boundary, on the south, than the ocean. Accordingly, the conquest of the remote part of the Deccan employed a very considerable part of his leisure during the latter part of his reign: when the whole of that region, together with the peninsula, a few mountainous and inaccessible tracts only excepted, were either entirely subjected, or rendered tributary to the throne of Delhi. What might appear to Aurungzebe to render this step of subduing the Deccan, necessary, was, the determined spirit and growing power of Sevagee, the founder of the Mahratta state; who, by his conquests in Vishapour, appeared almost in the character of a rival to Aurungzebe.

A rebellion of the Patans beyond the Indus, in 1678, called for the presence of Aurungzebe, there: which was no sooner quelled, than his persecution of the Hindoos stirred up the Rajpoot tribes in Agimere. He undertook this war also, in person: but was hemmed in with his whole army, between the mountains, and the Empreſs herself, was taken prisoner: she was afterwards, however, permitted to escape, as well as the Emperor. This did not dis-

courage him from carrying the war into the Rajpoot country again, in 1681: when he took and destroyed Cheitore, the famous capital of the Rana; as well as all the objects of Hindoo worship found there. The spirits of these gallant people, were, however, still unsubdued: and Aurungzebe was necessitated to grant them a peace*.

Sevagee died in 1680, and left his rising state of Mahrattas, to his son Sambajee; who was afterwards betrayed into the hands of, Aurungzebe, and barbarously put to death. Still, however, the mountainous parts of Baglana were unsubdued; and although the kingdom of Visiapour was reduced in 1686, and Golconda, in the following year; yet he found great difficulty in prosecuting his conquests on the west; as appears by his camp being fixed on the Kistna river, about 200 miles to the north-eastward of Goa, in 1695: I say, appears; for we have at present, no regular history of any later period, than the 10th year of Aurungzebe: that is, to the year 1670; when Mr. Dow's history finishes: all the events that are subsequent to this date, are from other authorities.

It is said that Aurungzebe was employed in the Deccan from the year 1678, to the time of his death, and was actually in the field, during the greatest part of the last 15 years of his life. This dereliction of his original empire and capital for nearly 30 years, occasioned various disorders in them; and laid the foundation of many more; among others, the second rebellion of the Rajpoots in Agimere; that of the Patans towards the Indus; and of the Jats, or Jates, in the province of Agra. This was the first time that the Jats appeared, otherwise than as banditti: since which, they grew

* The reader may find in the 49th note to Mr. Orme's Historical Fragments of the Mogal empire, a letter written by Jeswant Sing, Rajah of Joudypour, to Aurungzebe, expostulating with him on the unjust measures he was pursuing, with respect to the Hindoos. This letter breathes the most perfect spirit of philanthropy, and of toleration in matters of religion: together with the most determined resolution to oppose the meditated attack on the civil and religious rights of the Hindoos. The elegant translation of this letter was made by Mr. Boughton Rouse.

up to be a considerable state : and at one time, were of some consideration, in the politics of upper Hindoostan.

Aurangzebe died in 1707, in the 90th year of his age, at Amednagary in the Deccan ; which he had fixed on for his residence, when in winter quarters. Under his reign, the empire attained its full measure of extent. His authority reached from the 10th to the 35th degree of latitude ; and nearly as much in longitude : and his revenue exceeds 32 millions of pounds sterling, in a country where the products of the earth are about four times as cheap as in England. But so weighty a sceptre could only be wielded by a hand like Aurungzebe's : and we accordingly find, that in a course of 50 years after his death, a succession of weak Princes and wicked Ministers, reduced this astonishing empire to nothing.

Aurangzebe obviously foresaw the contests that would arise between his sons, for the empire : and it has therefore been asserted, that he made a partition of it, among them. This account, however, is not warranted by the memoirs of a nobleman of Aurungzebe's Court, lately published, in this country * ; nor by the best living authorities that I have been able to consult. Two letters, written by Aurungzebe to two of his sons, a few days before his death, indicate no intention of dividing the empire ; but express in doubtful terms, his apprehensions of a civil war †. He left behind him, four sons : Mauzum, afterwards Emperor, under the title of

* Memoirs of Eradët Khan, translated from the Persian by Capt. J. Scott, 1786. This valuable fragment of Mogul history, contains an account of the revolutions that happened in the Mogul empire, from the death of Aurungzebe, in 1707, to the accession of Ferokiere, in 1712. It contains much curious matter; and fully develops the political character of a Mogul courtier.

† These letters are preserved in one of the notes to the above work (page 8) and furnish this striking lesson to frail mortality ; that, however men may forget themselves, during the tide of prosperity, a day of RECOLLECTION will inevitably come, sooner or later. Here we are presented with the dying confession of an aged monarch, who made his way to the throne, by the murder of his brethren, and the imprudiment of his father : and who, after being in peaceable possession of it, persecuted the most inoffensive part of his subjects, either through bigotry, or hypocrisy. Here we behold him in the act of resigning THAT, to obtain possession of which, he incurred his guilt : and presented to us, a mere sinful man, trembling on the verge of eternity ; equally deploring the past, and dreading the future. How awful must his situation appear to him, when he says, "*Wherever I look, I see nothing but the DIVINITY.*"

Bahader Shah, Azem, and Kaum Buksh, who severally contested the empire with their elder brother, and Acbar, who 30 years before had been engaged in rebellion and fled to Persia. The death of their father, was the signal of hostility between Mauzum and Azem; the former approached from Cabul, and the latter from the Deccan, and disputed the possession of the whole empire (for Azem had proposed a partition of it) with armies of about 300,000 men each. Near Agra, it was decided by a battle, and the death of Azem: and Mauzum took the title of Bahader Shah. His title, before his accession, was Shah Aulum; by which name he is constantly mentioned in the memoirs of Eradut Khan.

Bahader Shah reigned about five years, and was a Prince of considerable ability, and great attention to business: but the convulsions with which his elevation had been attended (notwithstanding his pretensions, as eldest son of the late Emperor) added to the various disorders that had taken root, during Aurungzebe's long absence in the Deccan, had reduced the government to such a state of weakness, as required not only the exertion of the best talents, but also much time, to restore. The rebellion of his brother Kaum Buksh, soon after his accession, called him into the Deccan; and this being quelled by the death of Kaum Buksh, and the total dispersion of his followers, he wisely quitted this scene of his father's mistaken ambition; although the Deccan was far from being in a settled state. He had in contemplation to reduce the Rajpoot Princes of Agimere, who had formed a very strong confederacy; to which the long absence of Aurungzebe had been too favourable; and they appeared to act with much confidence and security. However, an evil of a more pressing nature, drew the Emperor's attention to another quarter. The Seiks, a new sect of religionists, appeared in arms in the Lahore province; and ravaged the whole country from thence to the banks of the Jumna river. The Seiks had silently established themselves, along the foot of the eastern mountains, during the reign of Shah Jehan. They differ from most

most religionists, in that, like the Hindoos, they are perfectly tolerant in matters of faith; and require only a conformity in certain signs and ceremonies: but unlike the Hindoos, they admit proselytes; although those from among the Mahomedans, are the least esteemed. They are now become one of the most potent states in Hindoostan. These, the Emperor marched against in person, and after much trouble and delay, reduced them; but their Chief escaped. The Emperor then took up his residence at Lahore, and seems to have continued there a very long time: probably, to check the remnant of the party of the Seiks; and to settle the affairs of the province, in general. Here he died, after a short illness, in 1712; and, it would appear, that he never had an opportunity of visiting Agra, or Delhi, during his reign.

He also, left four sons: among whom, a war for the succession, commenced on the spot. The second son, Azem Ooshawn, took possession of the treasures; but was opposed by his three brothers, who agreed to divide the empire among them. A battle, in which Azem was killed, decided matters in their favour; chiefly by the address and bravery of the youngest, Jehaun Shah; who seemed resolved to abide by the agreement, to divide the empire; and as a proof of his intention, directed the treasures to be divided. But Zoolfecar Khan, an Omrah in high trust, intrigued to prevent it; intending to raise to the throne, Jehaunder Shah, who was the best fitted for his purposes. A second battle was fatal to Jehaun Shah; and left his two remaining brothers to dispute the empire, by a third battle; which left Jehaunder, who was originally the eldest, in possession. He did not long enjoy his dignity: for at the end of nine months, he was dethroned by Fereksere, (or Furrocklere) son of the deceased Azem Ooshawn; and, of course, great grandson of Aurungzebe. The weakness and meanness of Jehaunder, is almost without parallel, in the annals of Kings*: and gave occasion to the

* His history is given in the abovementioned Memoirs.

Syeds (or Seids) Houssain Ali Khan, and Abdoolla Khan, two brothers, and Omrahs of great power, to set up Ferokhere. Having been possessed of governments in the eastern provinces, their influence enabled them to collect an army, with which they defeated that of Jehaunder, near Agra, in the same year, 1712.

The Seiks appeared again in arms, during the following year: and in 1716, they were grown so formidable, that it appeared necessary to march the grand army against them, with the Emperor at its head; but we are ignorant of the particulars of the campaign.

It was in this reign that the English East-India-Company, obtained the famous FIRMAN, or grant, by which their goods of export and import, were exempted from duties, or customs; and this was regarded as the Company's COMMERCIAL CHARTER in INDIA, while they stood in need of protection, from the Princes of the country.

In the year 1717, Ferokhere was deposed and blinded by the Seids: who raised to the throne Ruffieh-ul-Dirjat, a son of Bahader Shah. Both this Emperor and his brother, Ruffieh-al-Dowlat, were, in the course of a year, raised to the throne; and afterwards deposed and put to death by the Seids; who had now the disposal of the empire and all its concerns. Thus, in 11 years from the death of Aurungzebe, five Princes of his line, who had mounted the throne, and six others who had been competitors for it, had been disposed of: and the degraded state of the regal authority, during this period, had introduced an incurable anarchy, and a disposition in all the Governors of provinces, to shake off their dependency on the head of the empire. From this time, affairs declined very rapidly: and the empire, which had acquired some degree of consistency under the house of Timur, was now about to be dismembered, in a degree beyond what it had experienced, even before the æra of the Mahomedan conquests.

Mahomed Shah, grandson of Bahader Shah, was placed on the throne by the Seids, in 1718. This Prince, warned by the fate of his

his predecessors, and having very early in his reign acquired power sufficient for the purpose, got rid of the Seids : but not without a rebellion and a battle.

Nizam-al-Muluck, Viceroy of the Deccan, had for some time been rising into power ; and the times being favourable, he meditated independency. He had received some affronts from the Seids, which furnished him with an excuse for withdrawing to his government : from whence, in 1722, he was invited to Court, and offered the post of Vizier. This offer, however, he declined, as not suiting his projects : which had for their object, sovereignty, instead of ministry ; in the Deccan, at least. The Mahrattas too, whose power had progressively increased, and who even held their ground against so martial and persevering a Prince as Aurungzebe, were, as might be expected under a succession of weak ones, grown truly formidable to the rest of the empire : and their vicinity to the Nizam, afforded him a complete pretence for increasing his army. When the Princes of the house of Timur were so eagerly pursuing the conquest of the Deccan, it seems to have escaped their penetration, that this region, which possessed ample resources within itself, and innumerable local advantages in point of security from an enemy without, was also situated at such a distance from the capital, as to hold out to its Viceroy, the temptation of independence, whenever a favourable opportunity might offer. Perhaps, if the Deccan had been originally left to itself, the posterity of Timur might still have swayed the sceptre of Hindoostan.

While the Nizam continued so formidable in the south, the Mahrattas directed their attacks against the middle and northern provinces. Malwa and the open parts of Agimere were over-run by them ; and their detachments insulted even the capital of the empire. The weak Mahomed, had in the early part of his reign, endeavoured to satisfy their demands, by paying them a tribute amounting to one fourth of the net revenue of the invaded provinces : but this, as might have been expected, only increased

their insolence, and ended in their seizing on the provinces themselves.

In 1738, the Nizam, confident of his interest with a powerful faction at Court, came thither, attended by a large body of armed followers. Dowran, the commander in chief of the army of the empire, was at the head of the Court party; which the Nizam finding too strong, to be easily dispossessed of their places, he invited Nadir Shah, the usurper of the Persian throne, and who was then engaged in the siege of Candahar, to invade Hindoostan: hoping that he and his faction might get rid of Dowran; or at any rate, that they might profit by the confusion it would occasion. Many thought that the Nizam's views extended to the empire itself. Accordingly, in the following year, Nadir Shah entered Hindoostan, and advanced to the plains of Carnaul, where Dowran had assembled the army, but was soon after killed in a skirmish. So uncertain was the state of things, even at this time, that Nadir Shah offered to evacuate the empire for fifty lacks of rupees (half a million). But the intrigues of the Nizam and his party, occasioned the weak Emperor to throw himself on the clemency of the invader; who entered Delhi, and demanded 30 millions sterling, by way of ransom. Tumults, massacres, and famine, were the result: 100,000 of the inhabitants were massacred, and 62 millions of plunder, were said to be collected. Nadir married his son to a grand daughter of Aurungzebe, restored Mahomed Shah to his throne, and returned to Persia, after obtaining the cession of all the countries subject to Hindoostan, lying on the west of the Indus.

His departure left the Nizam in possession of the whole remaining power of the empire: and which he sacrificed to his own views in the Deccan, where he established an independant kingdom for himself. The Mahratta invasions of the Carnatic in 1740 and 1741, and particularly the defeat and death of Doast Ally (Nabob of Arcot) by their arms, called the Nizam home; after delegating his power at Court to his eldest son Gazi o'dien.

The

The Nizam, on his arrival, settled the Carnatic for the present, by placing Anwar o'dien, father of the present Mahomed Ally, in the government, or Nabobship of Arcot; which was then understood to comprehend nearly the present Carnatic.

Bengal became independant of Delhi a little before this time (1738) under Aliverdy Cawn; and not long after, a vast army of Mahrattas, both from Poonah and Berar (for they were now divided into two states) invaded it, under the sanction of the Emperor's name, who being at a loss to satisfy their repeated demands, sent them to collect for themselves, the arrears of revenue, since the defection of Aliverdy. About the same time the Rohillas, a tribe from the mountains that lie between India and Persia, erected an independant state on the east of the Ganges, and within 80 miles of Delhi. Very strong symptoms of the universal dissolution of the empire, appeared, at this time.

Nadir Shah died in 1747: and in the confusion that followed, Abdalla, one of his Generals, seized on the eastern part of Persia, and on the bordering provinces of India, that were ceded by Mahomed Shah to Nadir; and these he formed into a kingdom, known at present by that of Candahar; or more familiarly by that of the *Abdalli*. It comprises nearly the ancient empire of Ghizni.

Mahomed Shah died the same year, having reigned 29 years: a long period, considering the fate of his immediate predecessors, and the state of anarchy that prevailed so universally in Hindoostan.

Ahmed Shah, son of Mahomed, succeeded his father. In his reign, which lasted about 6 years, the entire division of the remainder of the empire took place: nothing remaining to the house of Timur, save a small territory round Delhi, together with the city itself (now no longer a capital) exposed to repeated depredations, massacres, and famines, by the contests of invaders. The last army that might be reckoned *imperial*, was defeated by the Rohillas, in 1749; by which their independency was firmly established in the

eastern part of the province of Delhi. The Jates, or Jats, a Hindoo tribe under Soorag-Mull, established themselves, and founded a state in the province of Agra. The Deccan and Bengal we have already seen, usurped by their Viceroy, the Nizam and Aliverdy: Oude was seized on by Seetida Jung (father to the late Sujah Dowlah, and grandfather to the reigning Nabob of Oude, Azuph Dowlah): Allahabad, by Mahomed Kooli: Malwa was divided between the Poonah Mahrattas, and several native Princes, and Zemindars: Agimere reverted of course, to its ancient lords, the Rajpoot Princes: and the Mahrattas, who had of late been making large strides towards universal plunder, if not to universal empire; possessed, in addition to their share of Malwa, the greatest part of Guzerat, Berar, and Orissa; besides their ancient domains in the Deccan: and were alternately courted and employed by different parties, and were become the Swiss of India; with this deviation from the custom of the European Swiss, that they usually paid themselves, instead of being paid by their employers. Abdalla, as has just been said, having established his new kingdom very early in this reign, entered Lahore and Moulton (or the Panjab) with a view to the conquest of them. The whole country of Hindoostan proper, was in commotion from one extreme to the other: each party fearing the machinations or attacks of the other; so that all regular government was at an end, and villiany was practised in every form. Perhaps, in the annals of the world, it has seldom happened that the bonds of government were so suddenly dissolved, over a portion of country, containing at least 60 millions of inhabitants.

The Nizam died, at a very advanced age*, in 1748, and was succeeded by his son Nazirjung, in prejudice to the rights of his eldest son, Gazi, Vizier to the nominal Emperor. The contests that followed soon after, between Nazirjung, and his nephew

* He was 104 years old. He left 5 sons; Gazi o'dien, Nazirjung, Salabidjung, Nizamally (the present sovereign of the Deccan, and the only survivor) and Bazalet Jung.

Muzzafer Jung, for the throne of the Deccan; and between the families of Anwar o'dien and Chunda Saheb, for the Nabobship of Arcot, one of its provinces; occasioned the French and English to engage as auxiliaries in the wars that happened in consequence of them. In the first, the French alone interfered: in the latter, both nations; the English espousing the cause of the family of Anwar o'dien. These wars lasted till the year 1754; and ended, after much bloodshed by battle and assassination, in fixing Mahomed Ally, second son of Anwar o'dien, in the government of Arcot; and Salabidjung, son of the late Nizam-al-Muluck, in the soubahship of the Deccan; the original disputants being either assassinated or killed in battle. By this result, the English gained the point of establishing their security and their influence in the Carnatic: and the French, in addition to the solid advantage of getting possession of the northern circars*, valued at half a million sterling, of annual revenue, gained the splendid but uncertain privilege of influencing the councils of the Nizam, by attending his person with their army, commanded by the celebrated M. Bussy.

The Mogul empire was now become merely nominal: and the Emperors must in future be regarded as of no political consequence, otherwise than as their names and persons were made use of, by different parties, to forward their own views. That the name and person of the Emperor were of use, as retaining a considerable degree of veneration among the bulk of the people in Hindoostan and the Deccan, is evident, from the application made at different times, for grants of territory, forcibly acquired by the grantee, but which required the sanction of the lord paramount, in order to reconcile the transaction to the popular, or perhaps, vulgar opinion. Thus every usurper has endeavoured to sanctify his usurpation, by either a real or pretended grant from the Emperor: and others, by

* The geographical position of the circars, and the origin of the application of the term *maribers*, to them, will be found in the latter part of this Introduction.

obtaining possession of his person, have endeavoured to make their acts pass for his. Another remarkable instance of the effect of popular opinion, is, that the coin throughout the whole tract, known by the name of the Mogul empire, is to this day, struck in the name of the nominal Emperor.

In 1753, the Emperor Ahmed was deposed by Gazi *, after having reigned about 6 years. In the preceding year, the Mahrattas had been called in, to assist in reducing the Jats, who were in possession of Agra, and become troublesome neighbours to the Emperor: and in the present year, the Berar Mahrattas established themselves in Orissa, by cession from Aliverdy, Nabob of Bengal: who was also compelled, for a short time, to pay them a tribute for Bengal and Bahar, amounting to one fourth of the clear revenue. This, together with the Mogul's former permission to collect the arrears of revenue due to him, is the foundation of their claims on Bengal and Bahar; and which they have never relinquished, although the times may have been unfavourable to their asserting them.

Allumguire II. grandson of Bahader Shah, was placed on the nominal throne by Gazi, with the concurrence of Nidjib Dowlah, a Rohilla Chief, and commander of the army. Abdalla of Candahar, was at this time in possession of Lahore, and threatened Delhi. In 1756, the Emperor, to get rid of Gazi, invited Abdalla to Delhi; who accordingly came, and laid that unfortunate city under heavy contributions; not even sparing the sepulchres of the dead; but being baffled in his attempt on Agra (held by the Jats) he proceeded no farther eastward, but returned towards Persia, in 1758. The Emperor and his family were now reduced to the lowest possible state of royalty: alternately soliciting the assistance

* It is necessary to observe, that the Gazi o'dien in question, is not the person whom we have seen before, in the capacity of Vizier to Mahomed Shah; but his son. But this is the Gazi, who is so famous, or rather infamous, for assassinations and crimes of almost every other kind. The elder Gazi perished in an attempt to recover the possession of the Deccan from his younger brother Salabidjung, in 1752.

of Abdalla, and of the Mahrattas; and as much in dread of their allies, as of their enemies.

In 1760, Allumgîre was deposed and murdered by Gazi. His son, the present Emperor, who took the title of Shah Aulum, was then engaged in a fruitless attempt to reduce the Bengal provinces. He had successively thrown himself, on the Mahrattas, Nidjib, Dowlah, and Sujah Dowlah, for protection and assistance; but without success. Mahomed Kuli of Allahabad, however, received him: and it was by means of an army furnished by that Chief, and by Bulwantsing, Zemindar of Benares, that he was enabled to enter the Bengal provinces, where he was joined by some refractory Zemindars of Bahar, and made up altogether a force of about 60,000 men: but notwithstanding his numbers, they were so ill provided, that he ended his expedition (in 1761) by surrendering himself to the British, who had taken the field as allies to the Nabob of Bengal: and who, having at that time no inducement to connect their fortunes with his, he applied with more success to Sujah Dowlah, who, in Mahomed Kuli's absence, had seized on Allahabad.

Abdalla, had visited Hindoostan no less than 6 times during the late reign; and appeared to have much more influence in the empire than Allumgîre had. His sixth visit, was in 1759 and 1760; when Delhi was again plundered and almost depopulated, although during the time of Aurungzebe it was supposed to contain two millions of souls.

The Mahrattas in the midst of these confusions and revolutions, daily gathered strength. We find them engaged in every scene of politics and warfare from Guzerat to Bengal; and from Lahore to the Carnatic. Possessed of such extensive domains and vast armies, they thought of nothing less than driving out Abdalla, and restoring the Hindoo government, throughout the empire. Thus, the principal powers of Hindoostan were arranged in two parties; the Hindoos and Mahomedans: for the Jats joined the Mahrattas; and

and Sujah Dowlah, with the Rohillas, and other Mahomedan Chiefs of less note, joined Abdalla: and a battle ensued in the old scene of warfare, the plains of Carnawl and Panniput. There were said to be 150,000 Mahomedans, and no less than 200,000 Mahrattas, whose cause the Jats deserted, before the battle. This was the most important struggle that had taken place, since the contests between Aurungzebe's sons, in 1707. Victory declared for Abdalla, after a battle more obstinate and bloody than any that the records of Hindoostan can probably shew: the carnage of the day, and the number of Mahratta prisoners taken, were almost incredible; and great deeds of valour were performed on both sides. This battle was decisive of the pretensions of the Mahrattas, to universal empire in Hindoostan. They lost the flower of their army, together with their best Generals: and from that period (1761) their power has been sensibly on the decline.

Abdalla's influence at Delhi, was now unlimited; and he invited Shah Aulum thither (then engaged in Bahar, as abovesaid) promising to seat him on the throne of his ancestors. He, however, did not venture to trust himself in the hands of Abdalla: who therefore, as his presence was required in Lahore, where the Seiks were on the point of overpowering his garrisons, set up Jewan Bucht, the son of Shah Aulum*, for Emperor, under the tuition and protection of Nidjib Dowlah; from whom he exacted an annual tribute. Thus, in fact, Abdalla became Emperor of Delhi: and if his inclinations had led him to establish himself in Hindoostan, it is probable that he might have began a new dynasty of Emperors, in his own person. He meant, probably, at some future time, to pursue his designs, whatever they were, either for himself or for the heir of the house of Tinnur, to which he had allied himself by a match with one of the Princesses. His son and

* This is the person who visited Mr. Hastings at Lucknow, in 1784. He was about 13 years old at the time of Abdalla's last visit to Delhi.

successor, the present Timur Shah, married another Princess of the same line.

After the departure of Abdalla, it appears that all the territory remaining to Nidjib Dowlah, for himself and the young Emperor, was the northern part of the province of Delhi. In the following year, 1762, both the Jats and Mahrattas pressed hard on Nidjib Dowlah, but he either baffled them, or bought them off; and held his ground during his life time: and then transmitted his country, which is chiefly situated between the Ganges and Jumna, to his son Zabeta Cawn, the present possessor.

Shah Allum the legal Emperor (whose son we have just seen in the character of his father's representative) was without territory, and without friends, save only a few Omrahs who were attached to his family; and were, like him, dispossessed of their property and station. The expulsion of the Nabob of Bengal, Cossim Ally, by the English, in 1763, by drawing Sujah Dowlah into the quarrel, was the means, once more, of bringing the wandering Emperor into notice. But he had more to hope from the success of the British arms, than those of his patron, Sujah Dowlah: and the uninterrupted success that attended them in 1763, 64, and 65, by the dispersion of the armies of Cossim Ally, and of Sujah Dowlah, and by the entire conquest of Oude and Allahabad; left both the Emperor and Sujah Dowlah, no hopes, but from the moderation of the victors. Lord Clive, who assumed the government of Bengal, in 1764, restored to Sujah, all that had been conquered from him, except the provinces of Corah and Allahabad; which were kept as part of an establishment for the Emperor: at the same time he obtained from the same Emperor, a grant of the provinces of Bengal, Bahar and Orissa, together with the northern circars; on condition of paying the Emperor 26 lacks of rupées (260,000l.) per annum, by way of tribute, or quit rent. The Corah provinces were valued at 30 lacks more. Thus was a provision made for the Emperor; and a good bargain struck for the English: for Bengal

and the emsars might be estimated at a million and a half net revenue, after the charges of the civil and military establishments, were paid. The Emperor was to reside at the city of Allahabad, and was, in effect, under the protection of the English, to whom he owed all that he possessed. A treaty offensive and defensive was entered into, with Sujah Dowlah, Nabob of Oude: and his territories being situated so as to form a barrier to ours, a competent force stationed within them, served to guard both, at the same time; and it was convenient to the possessor of Oude, to pay the expense of it, as if it had been retained for his service only.

It was, however, the misfortune of the Emperor, that he could not accommodate his mind to the standard of his circumstances, although these were far more favourable now, than at any other period of his life. But being the lineal descendant of the house of Timur, he aspired to possess the capital city of his ancestors; and in grasping at this shadow, he lost the substance of what he already possessed. For after about 6 years quiet residence at Allahabad, he put himself into the hands of the Mahrattas, who promised to seat him on the throne of Delhi: those very Mahrattas, who had wrested the fairest of his provinces from his family; and whose object was to get possession of the rest: and who intended to use his person and name, as one of the means of accomplishing it. A cession of the Corah provinces to the Mahrattas, was the immediate consequence of this connexion: and had not the English interposed, the Mahrattas would have established themselves in that important angle of the Doob, which commands the navigation of the upper part of the river Ganges, and the whole course of the Jumna, and which would have brought them almost close to our doors: besides the evil of extending their influence and power; and of feeding their hopes of extending them still further. The principle on which the British Government acted, was this: they considered the Corah, &c. provinces, which by right of conquest were originally theirs, as having reverted again to them, when they

were

were alienated from the purposes, for which they had been originally granted to the Emperor; and applied to the purpose of aggrandizing a power, which was inimical to them and to their allies. They therefore took possession of those provinces again, and immediately ceded them to the Nabob of Oude, for a valuable consideration. Indeed, it was a mistake originally, not to restore the possession of them to Sujah Dowlah, in common with the rest of his territories: and to settle a certain stipend in lieu of them, to the Emperor: for they, forming the frontier towards the Mahrattas and Jats, should have been placed in hands, that were better able to defend them.

The Mogul, however, went to Delhi; thereby losing all that he had acquired from the British; and has ever since been a kind of state prisoner: living on the produce of a trifling domain, which he holds by a tenure of sufferance; allowed him partly out of veneration for his ancestors, and partly for the use of his name. It must be allowed, that the Princes of Hindoostan, have generally shewn a due regard to the distresses of fallen royalty (when life has been spared) by granting Jaghires, or pensions. Ragobah's, is a case in point. The private distresses of Shah Allum (it is almost mockery to call him the Great Mogul, or Emperor) were, however, so pressing, during Mr. Hastings's last journey to Oude (1784) that his son Jewan Bucht came to solicit assistance from the English. Since the peace of 1782, Madajee Sindia, a Mahratta Chief, and the possessor of the principal part of Malwa, has taken the lead at Delhi; and has reduced several places situated within the districts formerly possessed by the Jats, Nudjuff Cawn, and the Rajah of Joinagur: and it may be concluded that Sindia has in view to extend his conquests on the side of Agimere: and to establish for himself, a considerable state, or kingdom.

It might be expected that the Rajpoots of Agimere, &c. would be less averse to receiving a Sovereign of their own religion, than they were to submit to the Mahomedan Emperors: and, more-

over, that it would be more for the interest of their people, to be subjects, than tributaries, of the Mahrattas; these being mild as Governors, although the most unfeeling, as collectors of tribute, or as enemies; yet it appears, that they entertain the greatest jealousy of Sindia's designs; the accomplishment of which would make their Princes sink into a state of greater insignificance, than they are at present.

In a country so fruitful of revolutions, it is difficult to foresee the event of Sindia's present measures; but they point strongly towards raising him to the head of the western Mahratta state, or to that of a new empire founded on its ruins. The provinces of Agra and Delhi, and that whole neighbourhood, are in the most wretched state that can be conceived. Having been the seat of continual wars for near 50 years, the country is almost depopulated, and most of the lands, of course, are lying waste: the wretched inhabitants not daring to provide more than the bare means of subsistence, for fear of attracting the notice of those, whose trade is pillage. Nothing but the natural fertility of the soil, and the mildness of the climate, could have kept up any degree of population; and rendered the sovereignty of it, at this day, worth contending for. So that a tract of country, which possesses every advantage, that can be derived from nature, contains the most miserable of inhabitants: so dearly do mankind pay for the ambition of their superiors; who, mis-calculating their powers, think they can govern as much as they can conquer. In the Mogul empire, many parts of it were 1000 miles distant from the seat of government; and accordingly its history is one continued lesson to Kings not to grasp at too much dominion; and to mankind, to circumscribe the undertakings of their rulers.

It is highly improbable that the house of Timur will ever rise again, or be of any consequence in the politics of Hindoostan. It was in 1525 that the dynasty of Great Moguls, began: so that reckoning to the present time, it has lasted 262 years: a long period for that country.

SKETCH of the MAHRATTA History.

WE have frequently had occasion, in the course of the above sketch, to mention the MAHRATTAS : and as the rise and progress of that state, is of much importance to the general history of the decline of the Mogul empire ; and so remarkable in itself, from the suddenness of its growth ; it may not be improper to give a short history of it, in an uninterrupted narrative ; although some part of the former one may be repeated.

The origin and signification of the word MAHRATTA (or MORATTOE) has of late been very much the subject of enquiry and discussion, in India ; and various fanciful conjectures have been made, concerning it. We learn, however, from Ferishta*, that MARHAT was the name of a province in the Deccan ; and that it comprehended Baglana (or Begilana) and other districts, which at

* This information occurs not only in Ferishta's history of Hindoostan, but in that of the Deccan, &c. likewise. The former we have before spoken of, as being translated by Col. Dow : but the latter has never yet made its appearance in any European language. It is expected, however, that the public will soon be in possession of it, from the hands of Capt. Jonathan Scott, who has already exhibited a specimen of one part of his intended work ; and has engaged to complete it, on conditions, which the public, on their part, appear to have performed. Ferishta lived in the Court of Ibrahim Audil Shah, King of Visapour ; who was contemporary with Jehangir in the beginning of the last century ; Ferishta's history of the Deccan, &c. opens to our view, the knowledge of an empire that has scarcely been heard of, in Europe. The Emperors of the BAHMINEAN dynasty (which commenced with Hassan Cato, A. D. 1347) appear to have exceeded in power and splendour, those of Delhi ; even at the most flourishing periods of their history. The seat of government was at Calberga (see Orme's Historical Fragments p. cxxvi.) which was central to the great body of the empire ; and is at this day a considerable city. Like other overgrown empires, it fell to pieces with its own weight : and out of it were formed four potent kingdoms, under the names of Visapour (properly Bejapour) Golconda, Berar, and Amednagur ; whose particular limits, and inferior members, we are not well informed of. Each of these subsisted with a considerable degree of power, until the Mogul conquest ; and the two first, as we have seen above, preserved their independency until the time of Aurungzeber. It is worthy of remark, that the four Monarchs of these kingdoms, like the Cæsars and Ptolemies, had each of them a name, or title, common to the dynasty to which he belonged ; and which were derived from the respective founders. Thus, the Kings of Visapour, were styled Audil (or Adil) Shah ; those of Golconda, Cutiab Shah ; and those of Berar and Amednagur, Nizam Shah, and Amul Shah.

present form the most central part of the Mahratta dominions. The original meaning of the term Marhat, like that of most other proper names, is unknown; but that the name of the nation in question, is a derivative from it, cannot be doubted: for the testimony of Ferishta may be received without the smallest suspicion of error, or of design to establish a favourite opinion, when it is considered that he wrote, at a period, when the inhabitants of the province of MARHAT did not exist as an independant nation; but were blended with the other subjected Hindoos of the Deccan. Besides the testimony of Ferishta, there is that also of Nizam-ul-Deen *, an author who wrote at an earlier period; and who relates, in his general history of Hindoostan, that one of the Kings of Delhi, made an excursion from Deogur (Dowlatabad) *into the neighbouring province of MARHAT* †.

Sevajee may be considered as the founder of the MAHRATTA EMPIRE. His ancestry is not very clearly ascertained; but the most commonly received opinion, is, that his grandfather was an illegitimate son of a RANA of Oudipour, the chief of the Rajpoot Princes; the antiquity of whose house may be inferred from *Ptolemy*. (See the Memoir, page 153.) The mother of this illegitimate son is said to have been an obscure person, of a tribe named *Bonsola* (sometimes written Bouncello, and Boonsla) which name was assumed by her son, and continued to be the family name of his descendants, the Rajahs of Sattarah, and Berar. After the death of his father (the Rana of Oudipour) he having suffered some indignities from his brothers, on the score of his birth, he retired in disgust to the Deccan, and entered into the service of the King of Bejapour (vulgarly Vissapour). The reputation of his family, added to his own personal merit, soon obtained for him a distin-

* Nizam-ul-Deen, was an officer in the court of Acbar; and wrote a general history of Hindoostan, which he brought down to the 40th year of that Emperor.

† This also occurs in Ferishta's history of Hindoostan. It was in the reign of Alauddin A. D. 1312. See also page lii, of the introduction.

guished raski in the armies of the King of Visiapour; in which he was succeeded by his son. But his grandson, Sevajee, who was born in 1628, disdaining the condition of a subject, embraced an early opportunity (which the distractions then existing in the Visiapour monarchy, afforded him) of becoming independant. So rapid was the progress of his conquests, that he was grown formidable to the armies of the Mogul empire, before Aurungzebe's accession to power: having before that period, seized on the principal part of the mountainous province of Baglana; and the low country of Concan, situated between it and the western sea. He had also acquired from the kingdom of Visiapour, the important fortress of Pannela, which commanded an entrance into the heart of it, from the side of Baglana; together with several other places of strength. In the Carnatic, he had possession of Gingee, together with an extensive district round it*: and this perhaps may be considered rather as an usurpation of one of the Visiapour conquests, than as an acquisition made from the original Sovereign of the Carnatic: for the King of Visiapour appears to have possessed the southern part of the Carnatic, including Tanjore†. Great part of the history of Sevajee will be found in Mr. Orme's historical fragments of the Mogul empire: and is well worth the reader's attention. At his death, which happened in 1680, his domains extended from the northern part of Baglana, near Surat, to the neighbourhood of the Portuguese districts of Goa, along the sea coast; but probably not very far inland, beyond the foot of the Gauts, and other ranges of mountains, which may be considered as branches of them: for Aurungzebe's army kept the field in Visiapour, at that period, and necessarily straitened Sevajee's quarters on that side. These con-

* The French obtained the grant of Pondicherry in 1674, from a Rajah of Gingee, who acknowledged the King of Narfinga as his superior; but this latter, was at the same time, dependant on Visiapour. Sevajee took possession of Gingee, about the year 1677; and confirmed the above grant, in 1680.

† I am ignorant of the period, when the Mahratta Prince, whose descendants now hold Tanjore, came into the possession of it.

quests were the fruits of hardy and persevering valour : partly, acquired in despite of Aurungzebe, then in the zenith of his power, Sevajee had also plundered Surat and Golconda; and even attacked Goa, when the Portuguese power was at its height. His son Sambajee, though possessed of considerable ability both as a statesman, and a soldier, fell a sacrifice to debauchery. In one of his loose excursions, he was treacherously seized on, and cruelly put to death, by Aurungzebe, in 1689. This, however, produced no submission on the part of the Mahrattas; who still increased in power, though not so rapidly as before. The Roman state had scarcely a hardier infancy : and the mountains of Gatte, which shelter from the stormy Monsoon, the countries that are situated to the leeward of them, afforded also a shelter to this rising state.

Sahoo, or Sahoojee (vulgarly, Saow or Sow Rajah) succeeded his father Sambajee, at a very early age; and as he inherited the ability and vigour of mind of his immediate ancestors, and reigned more than 50 years; great part of it at a season, the most favourable for the aggrandizement of a state, that was to rise on the ruins of another; the Mahratta power grew up to the wonderful height that we have beheld it at. For the confusions occasioned by the disputed succession among Aurungzebe's sons, and their descendants, opened a wide field to all adventurers: and particularly, to this hardy and enterprising people, bred in the school of war and discipline; and who had shewn themselves able to contend even with Aurungzebe himself. The conquests achieved under Sahoojee, are astonishing to those who do not know that Hindoostan is so full of military adventurers, that an army is soon collected by an enterprising Chief, who holds out to his followers a prospect of plunder; which the then distracted state of the empire, afforded the most ample means of realizing. At the time of Sahoojee's death, which happened in 1740, the Mahratta state or empire had swallowed up the whole tract, from the western sea to Orissa; and from Agra to
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the Carnatic and almost all the rest of Hindoostan, Bengal excepted, had been over-run and plundered. They were engaged in almost every scene of war and politics throughout the whole country; although it does not appear that they took any part in the contest between Nadir Shah and Mahomed, in 1738-9, except by availing themselves of the absence of Nizam-al-Muluck, to commit depredations on his territories in the Deccan. Probably they thought that more advantage would arise to them, from the disorders consequent on Nadir Shah's invasion, than by their assisting the Emperor in repelling him: we are also to consider the advanced age of Sahoojee, at that time.

It is difficult to trace the progress of the Mahratta conquests, according to the order of time, in which they were made. We find them taking part in the disputes between Aurungzebe's descendants at Delhi, as early as 1718: but it was not till 1735, that they found themselves strong enough to demand a tribute from the Emperor, Mahomed Shah. This demand terminated as we have before observed, in the acquisition of the greatest part of the fine province of Malwa; and in a grant of a fourth part of the net revenues of the other provinces in general. This proportion being named in the language of Hindoostan, a *Chour*, occasioned the future demands of the Mahrattas to be denominated from it: although they are by no means limited to that proportion, except in cases where an express compact has taken place: as in some instances, between the Berar Mahrattas and the present Nizam of the Deccan. They also, about the year 1736, took part in the disputes between the Nabobs of Arcot, in the Carnatic; within which district, the principal European settlements on the coast of Chormandel, are situated: which disputes eventually engaged the French and English East India Companies, in scenes of hostility for several years, as has been before observed.

The successor of Sahoojee, Ram Rajah, who succeeded in 1740, was a weak Prince: and it happened in the Mahratta state, as in

all despotic states of rapid growth, and recent formation, that great part of what was gained by the ability of one despot, was lost by the imbecility of another. The two principal officers of the state, the *Paishwah*, or Minister, and the *Bukshi*, or Commander in Chief, agreed to divide the dominions of their master: Bajirow, the Paishwah, assuming to himself the government of the western provinces; and Ragojee, the Bukshi, the eastern provinces: the former continuing at Poonah, the ancient capital; the other fixing his residence at Nagpour in Berar.

The Paishwah is said to have confined the Ram Rajah to the fortress of Sattarah (about 50 miles from Poonah) and then administered the government in his name. It is probable, from other accounts, that Sahoojee, during the latter part of his reign, had, by a long and unrevoked delegation of power to the Paishwah, prepared the minds of the people for this measure; which, to them, hardly appeared to be a change: as Sahoojee, in a manner, shut himself up in Sattarah, and seldom appeared in any act of government. There is some degree of analogy between this part of the history of the Paishwahs, and that of the Mayors of the palace, in France.

So violent a partition of the empire by its Ministers, encouraged, as might be expected, the usurpations of others, according to the degree of power or opportunity, possessed by each: so that in the course of a few years, the state became, from an absolute monarchy, a mere confederacy of Chiefs; and the loosest example of feudal government, in the world. The two Chiefs of the divided empire pursued each their plans of conquest, or negotiation, separately; on the general principle of respecting each others rights. The local situation of the Berar Chief, who was less powerful than the other, led him to a close connexion with the Nizam; though not professedly in opposition to the Poonah Chief.

The invasion of Bengal (of the causes of which we have spoken in page lxi) was undertaken by both the Mahratta states in 1742, and

and 1743; with armies, said to contain 80,000 horsemen each. The leaders of these armies appearing each to act for himself, the consequence was, that the wily Aliverdy found means to bribe one party, and to sow dissensions between both: by which the consequences were less dreadful to the Bengallers, than they otherwise must have been. Still, however, they are remembered with horror: and I have myself beheld many of the objects of their wanton barbarity, mutilated and defaced. As 160,000 horsemen were let loose, over the level country on the west of the Ganges; and the capital, Moorshedabad, being 12 miles from that river, it was cut off from all supplies of provisions and necessaries*, until Aliverdy doubly intrenched the road leading from the city to the Ganges: and thus supplies were conveyed in safety to the city, which was inclosed by another intrenchment, or rampart, of about 18 miles in circumference. The Mahrattas, did not depart out of the provinces, until the year 1744; when they had collected a vast mass of plunder, and had established the claim of the *Chout*: which, however, was never regularly paid. The Berar Mahrattas having, some years afterward, obtained possession of the Orissa province, partly by conquest, partly by cession from Aliverdy, their proximity to Bengal, from which they were separated only by a shallow river, afforded them frequent opportunities of plundering its frontier provinces. And it was not till the year 1761, when Cossim Ally, Nabob of Bengal, ceded the provinces of Bardwan and Midnapour, to the English, that the Mahrattas ceased to plunder them. The demand of the chout, however, although made occasionally, previous to the cession of Bengal to the English, had never been enforced: and during the war of 1780, when almost all the powers of Hindoostan were leagued together against the English, it was very feebly, if at all, insisted on, although the Berar Rajah had an army at Cattack.

* The city of Moorshedabad is situated on the westernmost branch of the Ganges: which branch is navigable only during a part of the year. See Appendix, page 259.

The administration of Bajirow was as vigorous as could possibly be expected, considering how the reins of government had been slackened. To the Mahratta empire, it was glorious: for he wrested out of the hands of the Portuguese, the fortress of Bassien, and the island of Salsette, near Bombay; places that stood in the next degree of importance, to Goa. He died in 1759, leaving the Paishwahship, which was now considered as an hereditary establishment, to his son Ballajee.

At this period the Mahrattas pushed their conquests into the Panjab, and even to the banks of the Indus. But the time was approaching, when this sudden elevation (which seems, in some instances at least, to operate in states as in individuals) was to serve only to make their downfall more conspicuous. They and Abdalla, had given each other mutual umbrage: and the wars that ensued between them, which ended with the famous battle of Panniput, of which we have already given an account, in page lxxiv, was decisive of the pretensions of the Mahrattas as Hindoos, to universal empire in Hindoostan; which they at that time (1761) found themselves strong enough to dispute with the Mahomedans.

Ballajee died soon after. To him succeeded his son Maderow, a youth. The Mahrattas had now abated of their ardour for distant expeditions, and their quarrels were chiefly with their neighbour, the Nizam; whom they by degrees, stripped of a considerable portion of his territories on the north, and west of Aurungabad. Maderow died in 1772; and was succeeded by his son Narain Row, who was murdered the following year, by Ragobah, his uncle, and son of Bajirow, the first Paishwah who assumed the sovereignty. The atrocity of this crime, made the author of it (who had been a General of reputation in the war against Hyder Ally, and the Nizam) detested by the body of the people, and capitalised against by the chiefs: he besides, failed in the object of clearing his way to the Paishwahship: for the widow of Narain produced a boy, who was acknowledged Heir.

Ragobah

Ragobah, who stood in need of allies, had engaged the Government of Bombay in his cause, with whom a treaty, very advantageous to the English, and indeed embracing the principal advantages so long desired by the East India Company, was entered into: and the fleet and army belonging to the Presidency of Bombay, were accordingly put in motion, to second the views of Ragobah; and to secure the advantages derived from the treaty. Hostilities were commenced both by sea and land: and the island of Salsette, separated from Bombay only by a narrow channel of the sea, was taken possession of by the English. This was a most desirable acquisition; as the settlement of Bombay possessed no territory, beyond the extent of the small island in which it is situated; and consequently depended on foreign supplies for its subsistence.

About this time, the Council General of Bengal was invested with a controlling power, over the other settlements in India: and the Mahratta war not meeting their approbation, Col. Upton was sent to Poonah in 1776, to negotiate a peace (since known by the name of the treaty of Pooreondar) by which Ragobah was to renounce his pretensions, and to receive a pension for life: and the English were to retain possession of Salsette. But in the end of 1777, the Bombay Government again espoused the cause of Ragobah; which measure terminated in a disgraceful convention, by which the Bombay army retired to their settlement; and Ragobah surrendered to his enemies. Being of Bramin race, his life was spared.

The war that followed between the English and the Mahrattas, was purely defensive on the part of the latter, after the arrival of a brigade of the Bengal army, under General Goddard: and was attended with the conquest, on the part of the English, of the finest parts of Guzerat, and the Concan; including the important fortresses of Baileen and Amedabad; in short, of the whole country from Amedabad to the river Penn; and inland, to the foot of the

Gauts.

Gauts. And on the side of Oude, the province of Gohud, and other districts, together with the celebrated fortress of Gwalior, were reduced; and the war carried into the heart of Malwa. But the expences of a successful war, may be too grievous to be borne; and as a war with Hyder Ally had broke out in 1780, and still continued, it was justly esteemed a most desirable advantage, to effect a peace with the Mahrattas: after detaching Sindia, the principal member of that state, from the confederacy. This peace was negotiated in 1782 and 1783, by Mr. David Anderson; whose services on that memorable occasion, claim, as is said in another place, the united thanks of Great Britain and Hindoostan. All the acquisitions made during the war, were given up, save Salfette, and the small islands situated within the gulf formed by Bombay, Salfette, and the continent.

The government at Poonah, during the minority, was shared among a junto of Ministers: and it is probable that so long a minority, may yet make some essential changes in the constitution of a state, so accustomed to revolutions in the superior departments of its government. The present Paishwah, by name Madarow (son of Narain Row, as beforementioned) was born in 1774.

The eastern Mahratta State, or that of Berar, under Ragojee, kept itself more free from foreign quarrels, than the other: but had its share of intestine wars. For Ragojee, dying, after a long reign, left four sons, Janojee, Sabajee, Modajee, and Bembajee. The first succeeded his father: but dying childless, in 1772, a civil war commenced between Sabajee and Modajee: the former of whom fell, in 1774; and the latter still holds the government of Berar, &c.: and Bembajee administers those of Ruttunpour and Sumbulpour, under him: though, I believe, with less restraint from his superior, than is ordinarily imposed on Governors of provinces. Ragojee, the father of the present Rajah of Berar, being a descendant of Sevajee, the original founder of the Mahratta state, the present Rajah is therefore by descent, the lawful Sovereign of the

the whole Mahratta state; the Poonah branch being extinct *: but it appears that he wisely prefers the peaceable possession of his own territories, to risking the loss of them, where the object is no more than the nominal government of an empire, which even manifests symptoms of speedy dissolution.

It is not likely that either of the Mahratta states will soon become formidable to the other powers of Hindoostan. The eastern state has not resources for it: and as for the western, it cannot well happen there, until some one of its Chiefs has gained such an ascendancy over the rest, as to re-unite that divided power, to which the late confusions in their government, gave birth. It requires some length of time to reduce a feudal government to a simple monarchical one: and till then, the western Mahratta state cannot be formidable, to the British power, at least. If Sindia proceeds with his conquests to the north and west, and establishes a new empire in Malwa, &c. this Mahratta state (the western) must be extinguished; and such a new empire would, perhaps, prove more formidable to Oude, and to the British interests, in consequence, than any power we have beheld since the first establishment of the British influence in India.

* Some believe that a Rajah of Sevajee's line is still living; that up in the fortress of Satarah. It is certain that the new Pashwahs go thither, to receive the investiture of their office; as they were accustomed to do, in former times; whether such a Rajah be in existence, or otherwise, is of no importance to the state; as matters are now constituted.

CONQUESTS of EUROPEAN POWERS, *since the downfall of the*
MOGUL EMPIRE.

AMONG the new powers that arose on the downfall of the Mogul empire, we must not forget to mention the French and English. As for the Portuguese, their power had past its meridian, before this period: besides, their views being (apparently) confined altogether to traffick, they wisely made choice of insular situations; such as Goa, Bombay, Salfette, Diu, &c.; and never appear to have possessed any very considerable extent of territory, although they kept on foot a large army of Europeans. The Dutch system was nearly the same: and their prosperity, in a great measure, grew out of the misfortunes of the Portuguese; who having fallen under the dominion of Spain, became obnoxious as well to the jealousy of rivalship, as to the revenge of the Hollanders.

The French power was but of short duration, but remarkably brilliant. It was a bright meteor, that dazzled at first, but which soon burnt itself out, and left their East India Company in utter darkness. It commenced during the government of M. Duplex at Pondicherry, in 1749. The French having assisted a Soubah of the Deccan in mounting the throne, attended his future steps with an army, and established an influence in his councils, that promised to be permanent: but which vanished very early, by the mere breath of Court intrigue: for while M. Bussy, at the head of the French army, was at Sandore, in the western quarter of the peninsula (in 1756) a quarrel with the Minister of the Soubah, effected the dismissal of the French. They were then compelled to retreat through an enemy's country for near 300 miles, until they reached Hydra-

Hydrabad; where they fortified themselves, and waited for a reinforcement from Masulipatam, their nearest settlement; which was upwards of 200 miles from Hydrabad. Great ability was discovered by M. Buffly, on this memorable occasion: an account of which, as well as of M. Buffly's warfare and negotiations in general, will be found at large, in Mr. Orme's invaluable history of the military transactions of the British nation, in Hindoostan. At Hydrabad, the quarrel was compromised: and the following year (1757) and part of the next, was spent by M. Buffly, in reducing the refractory Rajahs, or Zemindars, in the northern circars, and in assisting the Soubah in the execution of his own plans. But in the midst of these transactions, he was suddenly recalled into the Carnatic, by M. Lally; who determined to collect the whole force of the French, within that quarter: so that the Soubah was left at full liberty to accede to the proposals of the English. Lally was also justly accused of being jealous of the fame of M. Buffly.

The circars, the fruits of M. Buffly's wars and negotiations in the Deccan (and which had been obtained in 1753) yet remained to the French: but Colonel Clive, who was at this time Governor of Bengal, with that promptitude and decision which so strongly marked his character, seized on them, with a force from Bengal, in 1759; although they were defended by a much superior one: and the French were deprived of resources to carry on the war in the Carnatic. So that Lally failed to accomplish the purposes for which the French interest in the Deccan had been relinquished; namely, that of expelling the English from the Carnatic: for, on the contrary, the French not only lost all their possessions in that quarter, but in every other part of India. Thus, their political existence may be said to begin, in 1749, and to end in 1761, by the capture of their principal settlement, Pondicherry. They appear to have been the first European power, that trained the natives of India to regular disci-

pline*; as well as the first who set the example of acquiring territorial possessions, of any great extent, in India: in which they have been so successfully followed by the English.

THE expedition of the British troops into Tanjore, in 1749, was the first warfare in which they were engaged, against the forces of an Indian Prince: and it proved unsuccessful, as to its main object; which was, the restoration of a deposed King, or rather Rajah, of Tanjore, who had applied for assistance to the Governor of Fort St. David. The price of this assistance, was to be the fort and territory of Devicottah; situated at the mouth of the Coleroon, or principal branch of the Tanjore river: and this fort, notwithstanding their want of success in the cause of the deposed Rajah, the Company's troops, aided by the fleet under Admiral Boscawen, took possession of, after a short siege. In the following year they were called on, by the circumstances of the times, to take part in the disputed succession to the Nabobship of Arcot, in opposition to the French: who (as has been before observed) had taken the lead, both in the affairs of the Carnatic, and of the Deccan. We have also observed, that Nizam-al-Muluck, Subah of the Deccan, had placed Anwar o'dien in the Nabobship of Arcot, (in 1743): and that the death of the same Nizam, in 1748, had occasioned a considerable change in the politics of the Deccan, in which the French engaged so deeply. Chunda Saib was the person whom the French wished to raise to the government of Arcot: and the expulsion of the family of Anwar o'dien, was a necessary step towards it. These contests, which had been carried on with great credit to the British arms, were put an end to, by the interference of the two East India

* I am far from being well informed concerning the early history of the Portuguese in India: but by a passage in Mr. Orme's Historical Fragments, page 175, it would appear that they had not, in 1683, trained the natives to regular discipline. He says, "The Viceroy of Goa took the field (against Sambajee) with 1200 Europeans, and 25,000 natives of his own country." From the limited limits of the Portuguese territories, we may conclude that these were the ordinary militia only.

Companies, in Europe, in 1754 : and Mahomed Ally, son of Anwar o'dien, (who had fallen in the course of the war,) was left in possession of the Carnatic : or, at least, of that portion of it, which had been recovered to him, by the British arms. The particulars of these wars, will be found in Mr. Orme's history, volume the first.

War breaking out in Europe, in 1756, the truce was reduced to a very short period. The first object of the British Councils, was to wrest the northern citars out of the hands of the French ; as their revenue furnished them with the means of paying their army. The second was to drive M. Buffly's force out of the Deccan, by means of an alliance with the Nizam, or Soubah. Both of these projects were at this time defeated : the first by the miscarriage of dispatches to India : the second, by the capture of Calcutta, the chief British settlement in Bengal, in June 1756 ; and which induced the necessity of relinquishing every plan of hostility in the Deccan and Carnatic ; in order that a force might be spared, sufficient to accomplish the recovery of so important a settlement as Calcutta ; on which the whole trade to Bengal depended.

Aliverdy Cawn, Nabob of Bengal, died in 1756, and was succeeded by his grandson Surajah Dowlah. This young man either was, or pretended to be, irritated at the conduct of the English, within his dominions ; and was probably, jealous of the rising power of Europeans in general, in other parts of India. He determined to expel the English (at least) from Bengal : and accordingly took their fort at Calcutta, and compelled those among them, who were not made prisoners, to retire. In the following year, an armament from Madras, under Admiral Watson and Colonel Clive, not only recovered the settlement of Calcutta, but brought the Nabob to terms. The sword, however, being thus drawn, no permanent security could be expected on the side of the intruders, unless supported by power : which could not be obtained, while a Nabob, inimical to their interests, possessed the whole power of the kingdom. Suspicions on both sides soon brought matters to a

crisis: and Jaffier Ally Cawn, an Omrah, in high trust and favour with the Nabob, was negotiated with; and, on condition of their assisting him in his views towards the throne, engaged to be their future *Ally and confederate*; for, so much were matters changed by the late essay of their strength, and by the genius and good fortune of Clive, that *protection* would ill express the current expectation of the British. The famous battle of Plassey, fought in June 1757, and in which, Jaffier aided the accomplishment of their wishes, by standing neuter, laid the foundation of the future power of the British nation, in Bengal and Hindoostan. From that time, they became the arbiters of the succession to the Nabobship of Bengal, which speedily led to the possession of the powers of government: for Cossim Ally, who had been placed in the room of Jaffier, disliking his situation, resolved to hazard a change at all events; and this brought on a war, which ended in the expulsion of Cossim, and left the Bengal provinces in the possession of the English, who restored Jaffier to the Nabobship. He had been deposed, on a charge of imbecility, in 1760, and was restored in 1763. Cossim retired to Sujah Dowlah, Nabob of Oude, and prevailed on him to espouse his cause. Sujah had distinguished himself in the celebrated battle of Panniput, in 1761; and is reported to have had a considerable share in turning the fortune of the day, at the very moment when victory inclined towards the Mahrattas. Whether he over-rated his own talents for war; or mistook the military character and resources of the British, he, however, engaged too rashly in the war: and the consequences were, a total defeat of his forces, joined with Cossim Ally's, at Buxar, in 1764: and this was followed by the loss of all his territories, during that and the following year.

Those, whose belief has been staggered by the accounts of the conquests made on the Indians and Persians, by the Grecian, Patan, and Mogul armies, may reconcile their doubts by attending to the events of their own days; in which a handful of French troops, effected

effected revolutions in the Deccan: and another of British, made an entire conquest of Bengal, Bahar, and Oude, in little more than two campaigns. Each of those conquerors, both ancient and modern, after gaining certain advantages, pursued them by means of levies raised in the conquered countries themselves; and thus rendered the vanquished subservient to the final reduction of their own country. This was even the case of Alexander, who set out with 35,000 men, and left India, with 120,000. Such measures could only be pursued in countries, where the habit of changing their Governors, had rendered the governed indifferent to the choice of them. Even the whole number of combatants on the side of the British, did not exceed 7000, at the battle of Buxar: and of these 1200 might be Europeans. The battle of Plassey was gained with an army of about 3000 men; of whom 900 only, were Europeans.

Lord Clive, who reassumed the government of Bengal, in 1765, found matters in the state I have represented. He seized the opportunity of taking possession of the Bengal provinces; the Nabob Jaffier Ally being just dead; and obtained from the nominal Mogul, Shah Aulum (who, together with his nominal Vizier, Sujah Dowlah, had, as before related, thrown themselves on the generosity of the British); a grant of the diuanny, or administration of the revenues of Bengal, Bahar, and Orissa; on condition of paying the Mogul 26 lacks of rupees per annum (260,000*l.*). Thus a territory producing at that time, at least a million sterling, per annum, after every expence was defrayed, and containing at least ten millions of inhabitants, was gained to the Company, on the side of Bengal: together with the northern circars, valued at near half a million more, and for which a grant was also obtained. Sujah Dowlah had all his territories restored to him, except the provinces of Corah and Allahabad, which were retained for the Mogul; together with the fortress of Allahabad, which was assigned to him, as a proper place of residence.

Although the English were thus firmly and peaceably established in Bengal, in 1765, yet within two years afterwards, they were engaged in a very arduous contest in the peninsula, with Hyder Ally, the Sovereign of Mysore, leagued with the Nizam or Subah of the Deccan. Hyder's history is now so well known to the generality of readers in Europe, by means of the several publications that have lately appeared *, that it will be unnecessary to give any thing more than a short abstract of it, here.

Hyder Ally was a soldier of fortune, and the son of a person who served in quality of *Killador*, or Governor of a small fortress, to one of the Kings of Mysore. He is said to have acquired the rudiments of war, in the French camps: and in the year 1753, distinguished himself, as their auxiliary, in the plains of Trichinopoly. About ten years afterwards, being then at the head of the Mysore army, he dethroned his Sovereign, and governed under the title of Regent. Soon after, he extended his dominions on every side, the Carnatic excepted: the fine province of Bednore (or Bidanore) and the Patan Nabobships of Cuddapah, Canoul, &c. besides some Mahratta provinces towards the river Kistna; and the country of the Nairs, and other small states on the Malabar coast; were added to his original possessions; until at last he was at the head of a state, in extent equal to Great Britain, and producing a gross revenue of four millions sterling. The civil broils and revolutions in the western Mahratta state, particularly in latter times, allowed Hyder to aggrandize himself at its expence; but he, nevertheless, received some severe checks from that quarter. He was not arrived at the height of his power, when the war between him and the English, broke out, in 1767: but his power was such as to alarm his neighbours, and a resolution was taken to attack him. The Mahrattas under Maderow, entered Hyder's country on the side towards Visapour; and the Nizam, joined by a de-

* Capt. Robson's, and M. M. L. D. T.'s Lives of Hyder Ally, &c. &c.

tachment of British troops, moved from Hydrabad towards the frontier of Mysore, soon after. Hyder first contrived to buy off the Mahrattas with a large sum of money, and the restitution of some of the places he had taken from them. Next, he negotiated with the Nizam, and had the address, not only to detach him from the English, but to draw him over to his party : so that the English detachment was compelled by necessity to retire to the Carnatic ; on the frontiers of which, their grand army was now assembling. Besides the whimsical character of the Nizam, several other circumstances might conspire towards the determining him to act in the manner he did. The grant of the northern circars, and the emancipation of the Carnatic from any dependance on the Deccan, both of which were obtained from the Mogul, by the English ; could not but be very mortifying to the Nizam ; as having the appearance of a forcible partition of his territories. The circars, however, came into their hands (as we have seen) by conquest from the French, to whom they were originally granted by a former Soubah of the Deccan : so that the grant from the Mogul was merely nominal : besides, the Nizam had been prevailed on to acquiesce in the measure, by an offer on the part of the English, of five lacks of rupees (50,000l.) per annum, by way of tribute or quit rent. As to his superiority in the Carnatic, it had ever been nominal ; yet Hyder, who now meditated the conquest of it, was glad to obtain from the Nizam, a grant, or *Sunnoud*, for the Nabobship of it : and from this time, at least, he considered Mahomed Ally as his rival. It is proper to observe, that in the days of Mahomed Ally's distress, when he possessed only a small part of the Carnatic, he had engaged to cede the fortress of Trichinopoly, a most important post in the southern division of it, to the King of Mysore, for assistance then afforded him ; but this engagement never being performed, Hyder, as might be expected, adopted the claims and resentments of the Prince, whose throne he had taken possession of ; and never lost sight of his title to Trichinopoly. Had the engage-

engagement been fulfilled, it would have had the effect of separating for ever, from the Nabobship of the Carnatic, the provinces of Tanjore, Madura, and the rest of the southern provinces.

The war that immediately followed, was productive of some sharp battles, on the common frontiers of the Carnatic and Mysore: besides which, a strong detachment of the British army seized on Hyder's province of Coimbatore, a fertile district on the south of Mysore, and commanding the readiest way to Hyder's capital, Seringapatam. This was the first war in which the British arms had met with any steady opposition from a Prince of the country; for in the affair of Tanjore, in 1749, their arms were triumphant in the end, by the taking of Devicottah, their proper object. The war was continued with various success, during the years 1767, 1768, and part of 1769; when Hyder, with a strong detachment of chosen troops, chiefly horse, giving the British army the slip, came within seven miles of Madras, and dictated a peace to the Government of that place. This peace was disreputable to the British Councils only: since the hands of the commander in chief (General Joseph Smith) were tied up, at the very moment, the most favourable for striking a blow; and when Hyder, fearing the General's approach, could purchase his security no other way than by intimidating Government into the measure of laying their commands on the General, not to advance; by which measure he might possibly have cut Hyder and his detachment to pieces.

The Nizam, very early in the war, had been detached from Hyder's alliance; chiefly by the strong measure of sending a detachment from Bengal, into the heart of Golconda; which made him tremble for his capital, Hyderabad.

The peace left matters much in the same state as before the war: and whatever credit Hyder might have gained by the conclusion of it, was done away by the total defeat which he suffered, in 1771, from the Mahratta army, within a few miles of his capital, into which he escaped with great difficulty, with a small remnant of his

his army, and afterwards-defied the attacks of his numerous enemies, who possessed neither the skill, nor, the ordinary requisites for a siege. Hyder waited in patience, until the enemy by desolating the country, were compelled to leave it. A few years of peace not only restored matters to their former state, but improved both his revenues and his army, to a degree beyond probability; and at the same time, the distractions, that prevailed among the Mahrattas, enabled him to extend his territories at their expense. Such are the effects of firmness, perseverance, and economy.

It may be asked, how the Mahrattas, who are represented as so inferior in point of discipline to Hyder's troops, came to defeat him? It is accounted for, by the vast superiority in numbers of the Mahratta army (chiefly horse) which surrounding Hyder's troops, cut off their supplies of provisions, and compelled them to retire towards their capital; through a level, open, country, the most favourable to the attacks of cavalry. Hyder's army was formed into one vast hollow square, and marched, closely surrounded by the Mahrattas; when the advanced front of the square making too hasty a step, separated from the others; and the Mahrattas, pushing through the openings thus made, threw Hyder's whole army into irreparable disorder.

We have spoken before concerning the treaty made with the Nabob of Oude, and the mutual advantages derived to both parties; but particularly to the British, from the mode of defence adopted, for Oude; considering it as a common frontier to both states; as also, concerning the departure of the Mogul, in 1771; which threw the Corah, &c. provinces, into the hands of Sujah Dowlah.

It may be supposed, that the opposition made to the Mahrattas, when they attempted to take possession of those provinces in 1772, must have created some disgust. Indeed the British Government had long considered the Mahrattas, in the general scope of their designs, as inimical to its interests. In 1773, the Mahrattas crossed the Ganges to invade the Rohilla country. A brigade of the

British army, marched to the western frontier of that country, and drove the Mahrattas across the river. For this protection, the Rohilla Chiefs had stipulated to pay Sujah Dowlah forty lacks of rupees; (it must be observed that the British army moved, only as his allies) but when this essential service was performed, the payment of the money, was evaded. This breach of treaty led to the invasion and conquest of the Rohilla country, the following year, 1774. A considerable tract of land, in the Doab was also conquered from the Jats, and other adventurers, by which the boundary of Oude was advanced westward within 25 miles of Agra; north-westward, to the upper part of the navigable course of the Ganges; and south-westward to the Jumna river. In the following year (1775) on the death of Sujah Dowlah, and the accession of his son Asaph, a new treaty was made with the British Government, by which the quantum of the subsidy for the use of the brigade was increased, and the province of Benares, which produced a clear revenue of 240,000l. per annum, was ceded to the Company.

The war with the Poona, or western Mahrattas, of which we have already spoken (in page lxxxvii) occasioned the march of a brigade across the continent to the side of Bombay and Surat in 1778-9. This is perhaps, the most brilliant epoch of the British military history in India. The brigade, which consisted of less than 7000 men, ~~sable~~ native troops, commanded by European officers; marched from the banks of the Jumna, to the western sea, in despite of the Mahrattas, whose empire they traversed almost the whole way. The French war breaking out at this time, and Hyder Ally expecting a communion of interests with the French, he, in the Autumn of 1780, broke into the Carnatic with 100,000 troops; and these, both of foot and horse, the very best of their kind that had ever been disciplined by a native of India. His success, in cutting to pieces Col. Baillie's detachment; and the consequent retreat of the Carnatic army; occasioned the British in-

terests in that quarter, to be given up for lost, in the opinion of most people in Europe. Happily, Mr. Hastings and Sir Eyre Coote thought otherwise: and there was sent from Bengal, to the relief of the Carnatic, a brigade of about 7000 men: together with ample supplies of money, and provisions. Until the arrival of these troops and supplies, the British possessed nothing more in the Carnatic, than the ground occupied by their camps and fortresses. Under Sir Eyre Coote, Hyder was successfully combatted during two campaigns; at the end of which (October 1782) he found the possession of his object, the Carnatic, at so great a distance, that he appeared to be sincerely desirous of peace. So vast an army as he brought into the field, could not long be supported in it, by the revenues of Mysore alone; and the Carnatic was quite exhausted. Anticipation of revenue in Asiatic governments, has an immediate destructive effect; and cannot often be repeated. Hyder therefore saw the necessity of quitting his ambitious projects; and probably would never have pursued them, had he not expected a more early and effectual co-operation on the side of the French; with whose assistance he hoped to effect our expulsion, in a campaign or two. But he became, perhaps, more jealous of the French than of the English; and had the peace of Paris left the Carnatic in his hands, instead of Mahomed Ally's, the French would eventually have been on a worse footing than they are now likely to be: for he certainly never intended that they should assume any character in it, beyond that of merchants; although their object was the obtaining of a territorial revenue; without which, they well know, no European power can easily effect any thing against another, already in possession of one. In this disposition of mind, Hyder died soon.*

O. 2

after;

* The character of the late Hyder Ally appearing to me to be but little understood in this part of the world, I have ventured to attempt an outline of it. His military success, founded on the improvement of discipline; attention to merit of every kind; conciliation of the different tribes that served under his banners; contempt of state and ceremony, except what naturally arose from the dignity of his character; and his consequent economy in personal expences (the different habits of which, form the chief distinction of what is called Character among ordinary Princes)

after, and was succeeded by his son Tippoo, who seemed determined to prosecute the war. It was supposed that an attack of Tippoo's provinces, on the west of India, would, by giving an immediate entry into the most valuable part of his dominions, draw him from the Carnatic; and although there could be little doubt of its producing this effect, yet that part of the plan, which regarded the retreat, or security of the troops, afterwards; does not appear to have been so well concerted. The deplorable end of this detachment *, which was commanded by General Matthews, is too well known. At last, Tippoo, finding that the Mahrattas, his natural enemies, were at peace with the English, and consequently at liberty to pursue their ancient enmities; and moreover that the French had left him; he condescended, though reluctantly, to make peace, and matters were restored nearly to the condition they were in, before the commencement of hostilities. This peace was signed in March 1784, at Mangalore.

During the whole course of Sir Eyre Coote's warfare with Hyder Ally, it appeared, that nothing decisive could be accomplished, while the latter possessed so large a body of excellent cavalry, together with draught cattle so superior to ours, that his guns were always drawn off, and their retreat covered; although his army was beaten. The inconveniences arising from the want of a sufficient body of cavalry, may, perhaps, be incurable; but with early and proper attention, we might surely have our choice of draught cattle.

Princes) together with his minute attention to matters of finance, and the regular payment of his army; all these together, raised Hyder as far above the Princes of Hindoostan, as the great qualities of the late Prussian Monarch raised him above the generality of European Princes: and hence I have ever considered Hyder as the *FREDERICK* of the East. Cruelty was the vice of Hyder: but we are to consider that Hyder's ideas of mercy were regulated by an Asiatic standard; and it is not improbable that he might rate his own character for moderation and clemency, as far above those of Tamerlane, Nadir Shah, and Abdallah, as he rated his discipline above theirs.

Sir Eyre Coote survived Hyder only about five months. It is a remarkable circumstance that the Commanders in Chief of two armies, opposed to each other, should both die natural deaths, within so short a space of time.

* In April 1783.

We have slightly mentioned a general confederacy of the powers of Hindoostan, against the British. The Nizam or Soubah of the Deccan, having taken disgust at the conduct of the Madras Government towards him, in 1779, determined on a very deep revenge. This was no less than to engage all the principal powers of Hindoostan and the Deccan to join in a confederacy to expel the British. The Poonah Mahrattas were already engaged, and Hyder preparing; there remained the Nizam himself, and the Berar Mahratta. Each party was to pursue a particular scheme of attack, suited to his local position and means. Hyder was of course, to attack the Carnatic; the Nizam, the circars; the Poonah Mahrattas were to keep the Guzerat army under Goddard, employed; and the Berar Mahratta was to invade and lay waste the Bengal and Lahar provinces. It has been the fate of most of the grand confederacies that we meet with in history, that they have terminated rather in mutual blame, than mutual congratulation. The truth is, that they are seldom, if ever, pursued with the same unity of action, and energy, that are displayed by single states. Some are more deeply interested than others: one fears that another will be too much aggrandized; and a third is compelled to take part, contrary to his wishes. In the present case, the Poonah Mahratta and Hyder were each pursuing their proper, original plans, which had no reference to the particular object of the confederacy: the projector (the Nizam) had probably no intention ever to act at all; and the Berar Mahratta, appeared to act on compulsion: for although the Berar army *did* march, it was contrived that it should never arrive at the projected scene of action. Be it as it will, it was an awful moment for the British interests in India. The speedy pacification of the Nizam, and the money advanced to the Berar army at Cattack (call it by what denomination we may, subsidy, or

* It has been said, that Nudjuff Khan, who in latter times erected for himself a principality in the Soubah of Agra, made a fifth party in this confederacy. Of this circumstance, I am not sufficiently informed.

loan) were means very opportunely used by the Bengal Government. Indeed the whole conduct of the war was such as reflected the highest honour on that government: and when we successively were made acquainted with the news of the capitulation of the whole Bombay army in 1779; of the total annihilation of the flower of the Madras army in 1780; the approach of the Berar army towards Bengal in 1781 (which seemed to preclude all possibility of relieving the Carnatic by a brigade from Bengal) together with the grand confederacy: & say, when the news of all these misfortunes, and threatening appearances reached Europe, every one had made up his mind to the certain loss of some capital settlement, or to the ruin of one of the grand armies, for want of pay: and many persons thought that they saw the total destruction of the British influence and power in India. How then were we surpris'd, to find, that notwithstanding all these miscarriages, we were able, soon after, not only to face, but to seek the enemy in every quarter: and to hear of victories gained by the British armies, when we expected that even the very ground they fought on, had been abandoned to our enemies!

The establishment of the British power in the Mogul empire, has given a totally different aspect to the political scene of that country, from what it would have worn, had no such power ever existed. No one can doubt that the Mahrattas, had they been left to pursue their plans of conquest, would have acquired Corah and Allahabad in 1772, as well as the Rohilla country in 1773: and afterwards they might have over-run, at their leisure, the province of Oude, and its dependencies. The British interference prevented this. On the other hand, Hyder might have kept possession of the Carnatic. Some may be tempted to ask whether Hyder might not be as good a Sovereign as Mahomed Ally; or the Mahrattas, as Azuph Dowlah? Whatsoever may be the answers to these questions, they have no reference to the British politics; which require that Hyder or Tippoo, should not possess the Carnatic, in addition to

Myfore:

Myfore: and that the Mahrattas should not possess Oude, or Rohilcund.

I believe there are many who think that the British might have extended their possessions in Hindoostan, *ad libitum*: however, one of the greatest of our Indian statesmen, Lord Clive, thought that the Bengal provinces and the circars, together with a moderate tract of land round Madras, and the island of Salsette, near Bombay; were fully equal to the measure of good policy, and to our powers of keeping possession. Nor have his successors acted otherwise: for our wars since his time have not been wars of conquest for ourselves; though erroneously represented as such. The late war in India may convince such persons, as require conviction on the subject, that conquests made either on Tippoo, or the Mahrattas, could not be preserved with such an army as the revenues of the conquered tracts would support. We got possession of Bengal and the circars, under circumstances particularly favourable; such as may never occur again.

The Bengal provinces which have been in our actual possession near 23 years, (that is, from the year 1765, to the present time) have, during that whole period, enjoyed a greater share of tranquillity, than any other part of India; or indeed, than those provinces had ever experienced, since the days of Aurangzeb. During the above period of 23 years, no foreign enemy has made any incursion into any part of them, nor has any rebellion happened in any of the provinces (the very inconsiderable one of the Zemindar of Jungleterry, in 1774, excepted†). Previous to the establishment of our influence, invasions were frequent, particularly by the Mahrattas; and one province or other was ever in rebellion; owing to a want

* That is, the Carnatic being already the property of another. No one can doubt but that it would be more for our advantage to have the largest part of the Carnatic in our own hands, than in those of Mahomed Ally; although the whole revenue of it should be laid out in its defence. But the Carnatic is our weak side, in more respects than one.

† The province of Benares, in which a Rebellion happened in 1781, is distinct from the Bengal provinces. It was ceded to the British, as has been observed above, in 1775.

of energy in the ruling power; an ill paid, and mutinous army; or an excess of delegated power. Those who know what miseries are brought on a country by its being the seat of war, will know how to appreciate the value of such a blessing, as that of having the horrors of war removed to a distance from our habitations. There are, doubtless, evils that are inseparable from the condition of a tributary state, where the supreme ruling power, resides at the distance of half the circumference of the globe: but these are I hope, amply balanced by the advantages of military protection: and it is a fact not to be controverted, that the Bengal provinces have a better government, and are in a better state, as to agriculture and manufactures, than any other of the Asiatic countries, China alone excepted. But this state is doubtless very susceptible of improvement, even under a despotic government: though it unfortunately happens that the grand object for which the Bengal provinces are held, militates against the ease and happiness of their inhabitants: for there can be no inducement to increase a national income for the purpose of finally enriching another nation.

The state into which Hindoostan has fallen since the downfall of the Mogul empire, is materially different from what it was before it was united under the Mahomedan conquerors. It was then parcelled out into several moderate kingdoms, which appear to have preserved a degree of balance among themselves: but now, Hindoostan and the Deccan may be said to consist of six principal states, which hold as tributaries, or feudatories, all the inferior ones; of which there are many. The reader will not be at a loss to know that the two Mahratta states, the Nizam, Tippoo, the Seiks, and the British, are those I mean: for whatever verbal distinctions may be made, a compulsive alliance is at least a dependant; if not in fact, a tributary situation.

I have ran over the events of the late war in India, with a brevity which may probably be deemed censurable, considering their importance and variety. But I reflected that the accounts of those
events

events are in every body's hands ; and that every day produces some fresh matter, illustrative of them. The history of events that have happened, and that have also been recorded, in our own times, may be referred to, by the aid of memory ; their connexion or dependency traced ; and their chronology ascertained : but it was necessary to bring the events of a remoter period more within the view of the reader ; the public records of those times being less copious, as the scenes recorded, were less interesting to public curiosity.

GEOGRAPHICAL DIVISION *of* HINDOOSTAN, *into*
PROVINCES *or* STATES.

THE following account is divided into two parts : the first of which, contains the provincial division of the empire, under the Moguls, so far as the particulars have come to my knowledge ; the other contains the present division of it, into independant states, of very unequal extent and power. It will not be expected that the revenues or military force, of those states, should be, in general, well ascertained ; or that the exact relation in which many of the inferior provinces stand, to the more powerful ones in their neighbourhood, should be correctly known : since the knowledge requisite for such a detail, can only be collected from persons who have had opportunities either of making the proper enquiries on the spot, or of consulting such documents, as have received the sanction of authority. In some instances, it has been found impossible to resort to authorities of this kind ; as there are large tracts within this widely extended country, which no European of character (as far as I have heard) has visited, of late years. To this may be added, that the changes are so frequent, that the progress of enquiry and information would scarcely keep pace with them, throughout the whole region.

ACBAR'S DIVISION of HINDOOSTAN.

I SHALL not attempt to trace the various fluctuations of boundary that took place in this empire, since the æra of the Mahomedan conquests, according as the seat of government was removed from Ghizni to Lahore, to Delhi, or to Agra, as suited the politics of the times. It is sufficient for my purpose that I have already impressed on the mind of the reader, an idea that the provinces of Hindoostan proper have seldom continued under one head, during a period of twenty successive years, from the earliest history, down to the reign of Acbar in the 16th century: and that Malwa, Agimere, Guzerat, Bengal, &c. were; in turn independent; and that sometimes the empire of Delhi was confined within the proper limits of the province of that name.

During the long reign of Acbar in the 16th century, the internal regulation of the empire was much attended to. Enquiries were set on foot, by which the revenue, population, produce, religion, arts, and commerce of each individual district, were ascertained, as well as its extent and relative position. Many of these interesting and useful particulars, were, by Abul Fazil, collected into a book called the * *AYIN ACBAREE*, or *INSTITUTES OF ACBAR*; and which, to this day, forms an authentic register of these matters. Acbar began by dividing HINDOOSTAN PROPER into eleven soubahs† or provinces, some of which were in extent equal to large

* It is with pleasure I inform the reader, that an English translation of the whole *AYIN ACBAREE* has been made, and published in Bengal, by Mr. Gladwin; and was begun under the patronage of Mr. Hastings; to whose munificence, and attention to useful literature, the world will be indebted for the means of access to a most valuable repository of intelligence respecting the former state of Hindoostan.

An account of the contents of the *Ayin Acharee*, will be found at the end of Mr. Frazer's history of Nadir Shah.—*Catalogue of Oriental MSS.* page 12.

† It is probable that Acbar might have changed the boundaries of some of the old soubahs, by adding or taking away certain circars, by way of rendering each province more compact, and the provincial capital more central to the several parts of it.

European kingdoms. The soubahs were again divided into *circars*; and these sub-divided into *purgunnahs*. If I was to apply English names to these divisions, I should style them kingdoms (or *viceroyalties*) counties, and hundreds*. The names of the eleven soubahs were Lahore, Moultan (including Sindy) Agimere, Delhi, Agra, Oude, Allahabad†, Bahar, Bengal, Malwa, and Guzerat‡. A 12th soubah, that is, Cabul, was formed out of the countries contiguous to the western sources of the Indus, and included Candahar and Ghizni; and three new ones were erected out of the conquests in the Deccan: viz. Berar, Candeish, and Amednagur; in all fifteen.

A slight inspection of the map will afford more information respecting the relative positions of these soubahs to each other, and to the adjacent countries, than whole sheets of writing. It may be necessary, however, to make a few remarks on the boundaries of those soubahs that bordered on the Deccan, in order to understand the extent of the new conquests.

Guzerat, then, extended southward to Damann, where it touched on the district of Baglana, a division of Amednagur.

Malwa extended to the south of the Nerbudda river; and an angle of it touched on Baglana and Candeish on the south-west and south, and on Berar on the east. The Nerbudda formed the rest of the southern boundary of Malwa, and also of Allahabad. The government of Bengal extended to Cattack|| and along the river Mahanuddy; but the soubah of Orissa appears not to have been formed at that time.

Of the newly erected soubahs in the Deccan, Candeish § the smallest of them, occupies the space between Malwa on the north, Berar on the east, and Amednagur on the west and south.

* Few circars are of less extent than the largest English counties.

† Called also Illahabad.

‡ Guzerat is by some of the Hindoos considered as lying without the limits of Hindoostan. Vide Berar Rajah's letters.

|| Called also Cattack.

§ Named by Achar, DANDEISH, in honour of Prince Danial; but at present it bears its old name.

Berar, according to the present definition, has Allahabad and Malwa on the north; Candéish and Amednagur on the west; Tellingana and Golconda on the south; and Orissa on the east, and apprehend that only the western parts of Berar were reduced by Acbar.

Amednagur *, the southmost of Acbar's soubahs, had Candéish and Malwa on the north; the Gatté, or Balagat mountains on the west; Bejapour (or Vissapour) and Tellingana on the south; and Berar on the east. The limits of this soubah (Amednagur) are not defined in the Ayin Acbaree; and as Acbar had wars in the Deccan during almost his whole reign, it may be supposed that its limits were perpetually fluctuating.

Tellingana, which in the Ayin Acbaree is called a circar of Berar, was possessed only in part by Acbar. Tellingana, of which Warangole † was the capital, comprehended the tract lying between the Kistna and Godavery rivers, and east of Vissapour (answering to the modern province of Golconda) and was probably in more early times, an extensive kingdom; as the Tellinga language is said to be in use, at present, from the river Pennar in the Carnatic, to Orissa, along the coast; and inland to a very considerable distance.

Thus we have a standard for the geographical division of Hindoostan proper, in the time of Acbar; but for the Deccan in general, no authority on record has ever come to my knowledge. It appears that Acbar reduced the western side of it, as far down as the 18th degree of north latitude: and under his successors, the remainder of it, together with the peninsula, as we have already seen, was either entirely subjected, or rendered tributary to the throne of Delhi (the mountainous tracts held by the Mahrattas, excepted) and formed into one government, under the name of the

* The capital of this soubah being originally established at the city of Amednagur, it gave name to the whole province, but the name of the fortress of Dowlatabad has in turn superseded it. In like manner the name of Tellingana has now given way to that of Golconda.

† Called Arinkill by Ferishta. The rampart of this place can still be traced, and shews that it must have been a place of vast extent.

DECCAN*; which name, in its most extensive signification, includes the whole peninsula south of Hindoostan proper. However, in its ordinary acceptation, it means only the countries situated between Hindoostan proper, the Carnatic, and Orissa; that is, the provinces of Candeish, Amednagur, Vissapour, Golconda, and the western part of Berar. When the Mogul empire was extended to its utmost limits, by the addition of this vast province, its annual revenue exceeded 32 millions of pounds sterling†: and to enable the reader to make a just estimation of its absolute value, it is necessary to repeat, that the products of the earth are about four times as cheap in Hindoostan, as in England.

* I do not mean to insinuate that the country in question *first* obtained its name of DECCAN, under the successors of Achar: on the contrary, it has been so distinguished from the earliest times. It signifies the SOUTH; as POORUB does the EAST, when applied to Bengal and its dependencies.

† Mr. Frazer, in his *Life of Nadir Shah*, states the revenues of the provinces under Aurengzebe, as follows:

	Lacks of Rupees.		Lacks of Rupees.
Delhi	305½	Orissa	36
Agra	286½	Cabul, and Cashmere	97½
Agimere	163	Malwa	101
Mooltan	54	Guzerat	152
Sindy	23	Berar	153½
Lahore or Panjab	206½	Candeish	112
Oude	80½	Dowlatabad, or Amednagur	259
Allahabad	114	Beder	93½
Bengal*	431	Hydrabad or Golconda	278½
Bahar	101½	Vissapour	269½

TOTAL—30 crores, 18 lacks of sicca rupees; or about 32 millions of pounds sterling.

* Bengal is rated in the Ayin Acbaree (towards the close of the 16th century) at 149½ lacks; in Sujah Cawn's Nabobship, A. D. 1727, at 142½; and in 1778, at 197 lacks, net revenue.

PRESENT DIVISION of HINDOOSTAN.

HAVING given this very general idea of the original division of India, I shall next endeavour to convey an idea of the present division of it, as far as respects the principal states, or the powers that have appeared on the political theatre, since the establishment of the British influence.

The British nation possess, in full sovereignty, the whole subah of Bengal, and the greatest part of Bahar; I say *the greatest part*, because it appears that there are several purgannahs on the south-west of little Nagpou, that were formerly classed as belonging to Bahar, but are now in the possession of the Mahrattas*. In Orissa, they possess only the districts of Midnapour, the rest being entirely in the hands of the Mahrattas and their tributaries.† These possessions contain about 150,000 square British miles of land; to which, if we add the district of Benares, the whole will be 162,000†; that is, 30,000 more than are contained in Great Britain and Ireland: and near eleven millions of inha-

* This circumstance was ascertained by the late Colonel Camac.

† The following is an account of (nearly) the quantity of land contained in the countries subject to the British Government, and to the British Allies in Hindoostan.

BRITISH POSSESSIONS.		
Bengal, Bahar, and part of Orissa	149,217	
Benares, &c.	12,761	
Northern Circars	17,508	
Jaghire in the Carnatic	2,436	
Bombay and Salfette	200	
		Square British miles.
		182,122

BRITISH ALLIES.		
Oude, Allahabad and Corah	33,770	
Rohilcund, and Fyzoolah Cawn's	11,036	
Doo-Ab	8,430	
		53,286
Carnatic in general	21,650	
Tanjore	4,350	
		46,000
TOTAL.	-	281,408

bitants.

bitants. The total net revenue, including Benares, is at present about 287 lacks of sicca rupees, which may be reckoned equal to 3,050,000. In this calculation, every branch of the revenue, is included; such as the profits arising from salt and opium, the customs, &c. and the amount of the charges attending the collection of the revenues, and the stipend to the Nabob of Bengal, &c. are deducted: the whole amount of the gross revenue being 3,790,000. The subsidy from the Nabob of Oude is not taken into this account*.

The

* The following is nearly the state of the Company's receipts and disbursements at the present time, reduced to sterling money: the Sicca rupee being valued at 2s. 1½d.

BENGAL.

Land Revenue of Bengal and Bahar, 1786	2,800,000	
Benares Revenue, clear	330,000	
Oude Subsidy	420,000	
Customs, Salt, &c. clear of charges	120,000	
Salt Revenue, ditto	430,000	
Opium	60,000	
		4,210,000
Deduct charges of collection of the revenues of Bengal and Bahar, Nabob's stipend, &c.	740,000	
Military charges on the Company's, and on the Nabob's account	1,410,000	
Civil Establishment, Marine, and Fortifications	390,000	
		2,540,000
		Net Revenue.
		1,670,000

MADRAS.

Land Revenue, the northern Circars included	725,000	
Carnatic Subsidy	160,000	
Tanjore ditto	100,000	
Customs, &c.	25,000	
		1,070,000
Deduct Military charges on the Company's, and Nabob's account	770,000	
Charges of collecting the revenues	85,000	
Civil Establishment, Fortifications, &c.	130,000	
		985,000
		85,000

Total net Revenue at Bengal and Madras 1,755,000

At Bombay the disbursements exceed the receipts, by about 300,000
And at Bencoolen (on the island of Sumatra) the annual charges are about 50,000

Total of net Revenue in India 1,405,000

The natural situation of Bengal is singularly happy with respect to security from the attacks of foreign enemies. On the north and east it has no warlike neighbours; and has, moreover, a formidable barrier of mountains, rivers, or extensive wastes, towards those quarters, should such an enemy start up. On the south is a sea-coast, guarded by shallows and impenetrable woods, and with only one port (and even that of difficult access) in an extent of three hundred miles. It is on the west only, that any enemy is to be apprehended, and even there the natural barrier is strong; and with its population and resources, aided by the usual proportion of British troops* in addition to the sepoy establishment, Bengal might bid defiance to all that part of Hindoostan, which might find itself inclined to become its enemy. Even in case of invasions, the country beyond the Ganges would be exempt from the ravages of war, and furnish supplies for the general defence. But, with the whole revenue in our possession, the seat of war will probably be left to our own choice.

The late Nabob of Oude, Sujah Dowlah, possessed, at the time when he first became an Ally of the East India Company, the whole subah of Oude, and the greatest part of Allahabad; to which, in 1774, were added the eastern parts of Delhi and Agra, till that time possessed by a tribe of Afghan Rohillas, and by the Jats. The Zemindary of Benares, which includes also the circars of Gazypour and Chunar, constituted a part of the dominions of

It appears that the aggregate sum of the territorial revenue of the East India Company, together with the customs, salt, &c. is equal to 4,640,000*l.* per annum. The subsidies from the Nabobs of Oude, and the Carnatic; and the Rajah of Tanjore; are, of course, not included in this sum. The Company's military establishment in India, in time of peace, is about 10,000 Europeans, and 52,000 regular sepoy infantry. It appears also, that the sum total of the sales of East India and China merchandise, imported into this kingdom in one year, has amounted to five millions and a quarter sterling. Considering the magnitude of the sums, in the above statement, one is led to suppose that such an *imperium in imperio*, as the English East India Company, never before existed: or, at least, never was created, without much greater assistance from the collective strength and resources of the state, in which it was comprised, than this Company has ever received.

* It may appear paradoxical to some persons, but I am really of opinion that it is possible to have too great a proportion of European troops, to sepoys, in our Indian settlements.

Oude until the year 1775, when its tribute or quit rent of twenty-four lacks (since increased to forty) was transferred to the English. This Zemindary, which was lately in the hands of Cheet Sing, occupies the principal part of the space between Bahar and Oude, so that only a small part of the territory of the latter, touches Bahar on the north-west.

The dominions of Oude lie on both sides of the Ganges, occupying (with the exception of Fizeela Cawn's district of Rampour) all the flat country between that river and the northern mountains, as well as the principal part of that fertile tract lying between the Ganges and Jumna, known by the name of Doob*, to within forty miles of the city of Delhi. In short, the British nation, with their allies and tributaries, occupy the whole navigable course of the Ganges, from its entry on the plains, to the sea; which, by its winding course, is more than 1350 British miles.

The dimensions of Oude and its dependencies may be reckoned 360 British miles in length from east to west, and in breadth from 150 to 180; and their area is about one-third part of that of the Bengal provinces; being to each other in the proportion of 33 to 162. Generally speaking, the whole territory is one continued plain; and is a continuation of that extensive level valley, through which the Ganges and its branches, take their course. It is, moreover, the central part of the ancient kingdom or empire of the PRASII. The capital city is Lucknow, situated on the river Goomty: and about 650 miles from Calcutta.

The present Nabob of Oude, Azuph Dowlah, succeeded his father, Sujah Dowlah, in 1775. He is in alliance with the British power; and a brigade of the Bengal army is constantly stationed on his western frontier: thereby answering the purposes of covering Oude as well as Bengal; and of keeping the western states in awe.

* Doob or Doobah signifies a tract of land formed by the approximation and junction of two rivers; that formed by the Ganges, and Jumna rivers is called by way of eminence THE DOOB.

It is advanced about 100 miles beyond Lucknow. The whole expence of it is paid by the Nabob of Oude, by a stipulated sum, under the name of a subsidy. (See note page cxiv.)

The gross revenues of the dominions of Oude are reckoned to be about two millions and a half sterling : of which the new acquisitions of Rohilcund, Corah, and other parts of the Dooab, are more than one million. The military establishment, including the troops employed in the collection of the revenues, is from 50 to 60 thousand men : but very few indeed of these, deserve the name of regular troops.

Fizoola Cawn, a Rohilla Chief, possesses the district of Rampour, situated at the foot of the northern mountains : and although included in Rohilcund, yet this territory was secured to him, by the treaty of Loldong, in 1774. It is valued at 30 lacks of rupees per annum : but he is in effect tributary to Oude, by being bound to furnish his quota towards an establishment for the common defence.

Contiguous to the western bank of the Ganges, and surrounded by the dominions of Oude, is a small district belonging to a Chief of the Patan Rohilla tribe. It is generally denominated from its capital town, Furruckabad : and is little more than 30 miles in extent.

On the south-west side of the Jumna, and separated from it by a narrow tract of low country, is the territory named Bundela or Bundelcund, inhabited by a tribe of Rajpoots, but deemed inferior to their brethren of Agimere. Bundelcund is surrounded by the dominions of Oude, Benares, and the Mahrattas : and was formerly subject to a Rajah of the name of Hindooput : but is now chiefly divided among his sons, or their descendants. It is a mountainous tract, of more than 100 miles square : and contains the

* The reader may with ease reduce any sum in rupees, to sterling, by calculating quædly, at the rate of a lack of rupees to ten thousand pounds.

celebrated diamond mines of Panna * or Purna, together with some strong fortresses; among which, Callinger is the principal. It is subject to the depredations of the Mahrattas; and has of late years been attempted by Madajee Sindia; who, however could not make himself master of the principal fortresses; and in consequence abandoned the open country. The ancient limits of Bundelcund were much more extensive than the present; extending much further towards the Nerbuddah river. Chatterpour, is reckoned the capital.

The territories of Adjidding are contiguous to Bundelcund, on the west; to the Mahrattas on the south, and south-west; and to the Benares territory on the east. Their whole extent, including some tributary Zemindars on the south-east, may be about equal to Bundelcund; and, like that, subject to the occasional depredations of the Mahrattas. Rewah, or Rooh, is reckoned the capital; and lies on the great road between Benares and Nagpour. We know but little concerning the geography of the remote parts of this tract: nor are the boundaries well defined. The river Soane flows through it, in its course to the Bahar province.

Shah Alum, the nominal Emperor, or Great Mogul, of whom we have fully spoken, in the historical part of this Introduction, is now a mere pensioner in the hands of Madajee Sindia; who, notwithstanding, appoints him a residence at Delhi.

The Jats, Jates, or Jetes, were a tribe of Hindoos, who long since the death of Aurungzebe, erected a state in the provinces of Agra and Delhi. They at last fixed their capital at the city of Agra; and appear to have possessed a tract of country, along both sides of the Jumna river, from the neighbourhood of Gwalior, to that of Delhi; in length about 160 miles, and 50 broad. Col. Dow, in 1770, estimated their revenue (perhaps extravagantly) at 200 lacks of rupees; and their force at 60 or 70,000 men. This

* Ptolemy's *Panassa*, seems to be meant for Panna.

nation is traced by P. Wendell from the countries lying between the S E confines of Moultan, and Gohud. It is certain that Tamerlane made war on a people called the *Getes* in his march from Batnir to Semanah. Nudjuff Cawn, about 14 years ago, dispossessed the Jats of all their country, save the very confined territory of Bhartpour. Madajee Sindia, has, in turn, stripped Nudjuff Cawn's successors of these conquests; which are now scarcely worth possessing, although 20 or 21 years ago, under Sooraje Mull, they ranked among the most flourishing provinces of Hindoostan. It will be perceived that the Jats no longer exist, as a nation; all that remains to Runjet Sing, the son of Sooraje Mull, being the fort of Bhartpour or Baratpour, situated about 45 miles on the west of Agra, with a small territory of 4 or 5 lacks of rupees. The Rajah of Gohud is of the Jat tribe, but unconnected with Runjet Sing.

The late Nudjuff Cawn, whom we have just mentioned, is an instance, among others, of the very sudden rise and fall of the modern states of Hindoostan. From the condition of a minor Jaghiredar, and the Commander in Chief of the imperial army, after the return of the present Mogul, to Delhi, in 1771, he became, in the course of 7 or 8 years, the possessor of a domain, yielding 250 lacks of rupees annually; and kept up an establishment of 80,000 troops of all denominations; in which, were included 23 regular battalions of sepoy. His conquests were on the Jats, the Rajah of Jyenagur, and the Rajah of Macheery (which last had reduced a considerable part of the Mewat) and in 1774, he became possessed of the city of Agra. No vestige of this greatness has remained for several years past. His empire, in a manner, died with him: and Madajee Sindia possesses most of it, at this time. This brings us to the subject of MEWAT, which is the hilly and woody tract lying on the S W of Delhi, and on the west of Agra; confining the low country along the western side of the Jumna river, to a (comparatively) narrow slip, and extending westwards; about 130 B. miles. In length from north to south, it may be 90 miles.

miles. This tract is remarkable, in that, although it is situated in the heart of the empire of Hindoostan; that is, within 25 miles of its former capital, Delhi, its inhabitants have ever been characterized as the most savage and brutal: and their chief employment, robbery and plundering. We have mentioned in page xlix, the severities practised on them in the 13th century. At the present time, Mewat is so famous a nursery for thieves and robbers, that parties of *Mewatti* are taken into pay by the Chiefs of upper Hindoostan, for the purpose of distressing the countries which are made the seat of warfare. In Acbar's division, this tract made a part of each of the soubahs of Delhi and Agra: but most of it was included in the latter. Mewat contains some strong fortresses, on steep, or inaccessible hills; among which, is Alwar, or Alyar, the citadel of the Macherry Rajah. It has changed masters very often, during the contests between its native Rajahs (or Kanzadeh) and the Jats, the Rajah of Joinagar, Nudjuff Cawn, and Madajee Sindia; and between these powers, successively. Sindia has made a considerable progress in the reduction of it.

Bordering on the north of Mewat, and approaching with its eastern limit within 24 miles of Delhi, is a tract 80 or 90 miles in length, and from 30 to 40 broad, named Little Ballogistan: its ancient Hindoo name was Nardëck. Within the present century, and most probably since the rapid decline of the Mogul empire, this territory was seized on by the Balloges, or Balloches; whose proper country adjoins to the western bank of the Indus, opposite to Moultan. Some tribes of them are also found in Makran. They are represented as a most savage and cruel race; and appear to be very proper neighbours for the Mewatti. Their territory is full of ravines, and of course, difficult of access to invaders: it has, however, undergone the fate of its neighbours, and been successively tributary to the Rohilla Chief, Nidjib Dowlah, to the Jats, and Nudjuff Cawn. Westward, it borders on the Seiks.

The

The territory possessed originally by Nidjib Dowlah, an Afghan Rohilla (whom we have formerly noticed, as guardian to the young Emperor of Abdalla's setting up, in 1761 *) is, in part, in the possession of his grandson Golam Cawdir; his son Zabeta Cawn dying in the end of 1784, or beginning of 1785. This territory occupies the head of the Doobah, or that part which borders on the Sewalick mountains. It composed chiefly the circar of Sehaurunpour; in Acbar's division of the empire; and does not exceed 100 B. miles in length, from east to west, by 75 in breadth. The original possessions of Nidjib Dowlah comprehended also the country of Sirhind, on the west of the Jumna river; and also the districts round the city of Delhi: but the Seiks have not only encroached on the west, and possessed that shore of the Jumna, but commit depredations in Sehaurunpour, and even to the banks of the Ganges. Sindia having also encroached on the south, it is highly probable that this tract will not long form a distinct state or principality.

The Seiks may be reckoned the most western nation of Hindooistan; for the King of Candahar possesses but an inconsiderable extent of territory on the east of the Indus. Their progress as a nation has been slightly mentioned in pages lxiv and lxvi: and since the complete downfall of the Mogul empire, they have acquired very extensive domains. But their power ought not to be estimated, in the exact proportion to the extent of their possessions, since they do not form one entire state; but a number of small ones, independant of each other, in their internal government, and only connected by a federal union. They have extended their territories on the south-east, that is, into the province of Delhi, very rapidly of late years; and perhaps, the Zemindars of that country may have found it convenient to place themselves under the protection of the Seiks, in order to avoid the more oppressive government of their

* Nidjib Dowlah, who was an *shérif* of the famous Gazi o'dien Cawn, died in the year 1770.

former masters. Certain it is that the eastern boundary of the Seik's dominions, has been advanced to the banks of the Jumna river, above Delhi; and to the neighbourhood of that city: we have just observed, that the adjoining territory of Sehaurunpour, is subject to their depredations, if not actually tributary to them: and that they make excursions to the very side of the Ganges. On the south, they are bounded by the northern extreme of the sandy desert of Registan, and on the S W their boundary meets that of Sindy, or Tatta, at the city of Behker, or Bhakor, on the Indus. On the west, the Indus is their general boundary, as high up as the city of Attock; near to which begin the territories of the King of Candahar: and their northern boundary is the chain of mountains that lie towards Thibet, and Cashmere. This being the case, they will be found to possess the whole soubah or province of Lahore, the principal part of Moultan, and the western part of Delhi: the dimensions of which tract, are about 400 B. miles from N W to S E: and from 150 to 200 broad, in general: although in the part between Attock and Behker (that is, along the Indus) the extent cannot be less than 320. Their capital city is Lahore. We know but little concerning the state of their government and politics: but the former is represented as being mild. In their mode of making war they are unquestionably savage and cruel. Their army consists almost entirely of horse, of which they are said to be able to bring at least 100,000 into the field. It is fortunate that the Oude dominions have the Ganges for a barrier between them and this army of plunderers. Abdalla was accustomed to pass through the country of the Seiks, during his visits to Delhi, as late as the years 1760 and 1761: and indeed meditated the conquest of it: but it is probable, that with the present strength of the Seiks, no King of Candahar will again attempt either the one or the other. It was lately reported that the Seiks were in amity with Timur Shah of Candahar, and meant to allow his army a passage through their territories. This, however, appears highly improbable:

bable; the progress of an Indian army effecting nearly an equal degree of desolation, whether it enters a country on terms of hostility, or of amity.

Timur Shah (the successor of Ahmed Abdalla, late King of Candahar, Korasan, &c. who died about the year 1773) possesses in Hindoostan, nothing more than the country of Cashmere and some inconsiderable districts contiguous to the eastern bank of the Indus, above the city of Attock. We have spoken of the extent of the kingdom of Candahar, in page 112 of the Memoir: and it may be proper to add, in this place, that the founder of that kingdom, the above-mentioned Ahmed Abdalla, was originally the Prince, or Chief, of an Afghan tribe named Abdal (whence the term *Abdalli*) and that he was stripped of his country by Nadir Shah, and compelled to join the Persian army in 1739. On the death of Nadir, he suddenly appeared among his former subjects, and in a short time, erected for himself a considerable kingdom in the eastern part of Persia: adding to it, most of the Indian provinces ceded by the Mogul to Nadir Shah. It has been asserted, that Abdalla had arisen to a high command in the Persian army; and that, his department, of course, occasioning a large sum of money to centre with him; he, on the death of Nadir Shah, availed himself of the use of these treasures, to carry off a part of the army. He established his capital at Cabul near the hither foot of the Indian Caucasus: and it appears by the accounts of Mr. Forster, who traversed the country of Timur Shah in 1783, that his subjects live under an easy government: that is, for an Asiatic one. The revenues and military force of Candahar, have not come to my knowledge. The military establishment *has* been given at 200,000 men. Ahmed Abdalla had regular infantry, clothed like the British sepoy: and, at one time, made use of the British manufactures for that purpose: the trade went by Sindy, and up the Indus and its branches, to Cabul. This trade has long been at an end.

The province of Sindy, or that lying on both sides of the lower part of the river Indus*, is subject to a Mahomedan Prince, who is tributary to the King of Candahar; it being among the provinces ceded to Nadir Shah, by Mahomed Shah, in 1739. Although it properly belongs to Hindoostan, it is so detached from it by the great Sindy desert, that it takes no part in its politics. This province is described in page 285, to which the reader is referred.

The province of Cutch, on the S.E. side of Sindy, as well as the western parts of the peninsula of Guzerat, are governed by Rajahs of their own: and do not appear to have undergone much change, by the late revolutions in Hindoostan. Cutch is not only a barren country, but in its nature too strong to be easily attacked. And the western part of Guzerat is mountainous and woody; and inhabited by a wild, hardy, race: and therefore on both accounts, unfavourable to the progress of a Mahratta army.

The Mahrattas, as has been observed before, form two distinct empires, or states; that of Poona, or the western: and Berar, the eastern. These states collectively, occupy all the southern part of Hindoostan proper; together with a large proportion of the Decan. Malwa, Orissa, Candeish, and Vindhyaour; the principal parts of Berar, Guzerat, and Agimere; and a small part of Dowlatabad, Agra, and Allahabad, are comprised within their extensive empire; which extends from sea to sea, across the widest part of the peninsula; and from the confines of Agra northward, to the Kistna southward; forming a tract of about 1000 British miles long, by 700 wide.

The western state is divided among a number of Chiefs or Princes, whose obedience to the Pashwah, or Head, is, like that of

* The celebrated Sir William Jones very ingeniously remarks, that "it is usual with the Asiatics to give the same names to the countries which lie on both sides of any considerable river." Thus the province of Sindy is divided by the Indus; Bengal by the Ganges; and Pegu by the Irrawaddy. Egypt, in like manner, is divided by the Nile. Probably, the facility of access to either side, by means of a navigable river, and an occasional inundation, subjected each of the divisions, formed by the course of the river, to the constant depredations of its opposite neighbour; till necessity produced a compromise, which ended in joining them in one community.

the German Princes to the Emperor, merely nominal at any time; and, in some cases, an opposition of interests begets wars, not only between the members of the empire themselves, but also between the members and the head. In fact, they are seldom confederated but on occasions that would unite the most discordant states: that is, for their mutual defence: for few occasions of foreign conquests or plunder, are of magnitude enough to induce them to unite their armies.

Was I inclined, I want ability, to particularize the possessions and situations of all the Chiefs that compose this Mahratta State, I shall therefore attempt only to mention the principal ones, commonly styled *Jaghiredars*, or holders of "*Jaghires*": their titles to their possessions, being nominally during their life time only; although they have long since become hereditary.

The Paishwah, or nominal head of the western empire, resides at Poonah, which is situated at the south-west extreme of the empire, and about 100 miles from Bombay. There are three principal Jaghiredars on the north of Poonah, and two on the south: the first are, Madajee Sindia, Tuckajee Holkar, and Futty Sing Gwicutar; and the latter, Purferam Bow, and Rastah, who is more commonly styled the *Meritch Wallah* (or Meritch Man) from his having established his capital at that city†, previous to the conquest of it, by Hyder Ally. Before I proceed to particularize the

* *Jaghire*, means a grant of land from a Sovereign to a subject, revokable at pleasure; but generally, or almost always, for a life rent.

† The exact geographical position of this important fortress and city, is not ascertained; but it is with great reason supposed to be the same with Miris or Mirdi, of Masdellor's ruins, drawn by P. du Val: which is situated near the north bank of the Kistna river, about 20 road miles SW from Villapour, and 130 from Poonah. It is also, most unquestionably, the same place with Merrick: a place of consequence, in Aurungzebe's wars with Sanjayee. In the Select Committee's reports, it is named indifferently, Merrick and Meritz. It may be collected from those reports, and from Mr. Orme's historical fragments, that this place is situated on the north bank of the Kistnah; on the NW of Sanjayee-Bancapour, and on the SW of Villapour; and its distance from the former, ought to be very considerable: for part of the Circuit of Nourgal, Azimabad, and Kiliang, intervene between those of Bancapour and Meritz. And this is the case with Miris on the map, which is about 108 G. miles from Bancapour. There is also a fortress of great note in Aurungzebe's, and in Hyder Ally's wars, named Darwar, or Danwar. This appears to be comprehended in the Circuit of Bancapour, and about 20 miles on the SE of Meritz. I have not ventured to place Darwar in the map; but both the position of it, and of Hubely, make it appear still more probable that Miris is the same with Meritz, Merich, or Merick.

different partners, or sharers, in the several provinces, it will be necessary to observe that the Mahratta dominions have in some places, been portioned out among the different Chiefs, after a method that appears the most confused and intricate, imaginable. For not only the *Pargannahs*, or grand divisions of provinces, are divided in some instances, among three different powers; but even the revenues of particular villages, are divided in like manner, and in consequence, distinct officers are appointed, for the purpose of collecting the respective shares*.

The province or soubah of Malwa (to which this account particularly applies) one of the most extensive, and the most elevated, and highly diversified in Hindoostan, is divided among the Paishwah, Sindia, and Holkar: as is also the small soubah of Candish, adjoining to it, on the south; and which contains the fine city of Burhanpore, in the possession of Sindia.

The province of Agimere, has only in part been possessed by the Mahrattas, and that part is now entirely in Sindia's hands. What is here expressed, relates only to what may be termed Agimere *proper*; and not to the whole soubah of that name, according to its geographical definition in the *Ayin Acharee*: since the three great Rajpoot principalities, Oudipour, Joodpour, and Joinagur, as well as Rantampour, are there, included in it. These Rajpoot principalities (of which more will be said hereafter) have long been held tributary to the Mahrattas; and now, by the ascendancy of Sindia, and by virtue of his local situation, he converts the whole of the tribute to his own use.

The largest, as well as the finest part of Guzerat, is divided between the Paishwah, and Fatty Sing Gwicuar (or Gwicker) the latter holds his share chiefly, in the northern part of it.

The provinces on the south of Poonah, are divided between the Paishwah, and the *Jaghiredars*, Purseram Bow, and Rastah. So little is known in Europe concerning the Geography of this part

* It is probable that this irregular division, arose from some accidental circumstances at the time when the conquest was made; and which cannot now be traced: but as it has the appearance of an expedient, calculated to check and restrain the power of the different Jaghiredars, it is generally supposed to be the effect of policy and design.

of the country, that the map of it, is almost a blank. I am by no means certain where to place the common boundary of the Mahratta and Tippoo's countries, in this quarter. Hyder took possession of Meritch (Meritz or Mirje) on the north bank of the Kistna, in 1778; and, I apprehend, never relinquished it.

The Paishwah, or his representatives, possess also many other districts in the NE, and east, parts of Malwa, &c. for the Poona territories, or those of its Jaghiredars, close on the river Jumna, opposite to Calpy: and also extend along the northern bank of the Nerbudda river, almost to its source; and encroach deeply on the S W side of Bundelcund, according to its ancient limits. The districts of Sagur, and Mundella, are situated in this quarter. Thus it appears, that the territories subject to Poona, are separated, or rather insulated, in an extraordinary manner; and this circumstance alone, must influence the domestic as well as the foreign politics of this state: since any considerable Jaghiredar may easily withhold the government's share of the revenues, and convert it to his own use.

From what has been said, it will appear impossible to discriminate the possessions of the Paishwah, any more than those of his Jaghiredars, on the map. All that can be done, is, to mark the body of each tract of land, in which the Paishwah and the particular Jaghiredars participate. It is understood that the Paishwah possesses a larger share, in the western part of the Deccan, than elsewhere. This tract is naturally very strong, particularly on the west side towards the sea, where a stupendous wall of mountains, called the Gaunts, rises abruptly from the low country, called the Concan (or Cockun) supporting, in the nature of a terrace, a vast extent of fertile and populous plains, which are so much elevated, as to render the air cool and pleasant. (See Memoir, pages 179 and 213.) This elevated tract, is continued not only through the Mahratta territories, but extends through the peninsula, to the southern extreme of Mysore; and is named *Balla-Gaut*, through-

throughout its whole extent: meaning literally, the *higher*, or *upper Gauts* *. In the peninsula, it is applied in contradistinction to *Payen-Gaut*, or the *lower Gauts*: but in the Deccan, it appears to be used only as a proper name, and not as a correlative: we having never heard of the Deccan, *Payen-Gaut*.

Nor is it less difficult to ascertain the sum of the revenue of this state, than to particularize the extent of the districts, from whence it is collected. The most intelligent and best informed persons that I have consulted on the occasion, will not venture to give an opinion on it. One person (a native of India) has stated the revenue at 12 crores of rupees, or 12 millions sterling: and the net receipts, Jaghires deducted, at five crores. The same account makes the military establishment in the field, to be 200,000 troops, foot and horse; besides an equal number in garrison. Another account of the revenue, by an European gentleman, reckons 7 crores for the net revenue. If the provinces possessed by this state, were to be rated in the same proportion as in the time of Aurungzebe, the net revenue would be about 8 crores of rupees, or 8 millions sterling.

Sindia is unquestionably the most powerful Jaghiredar within this state; and ought to be regarded as a sovereign Prince. Since the Mahratta Peace (1783) he has extended his frontier from Malwa towards the Jumna; swallowed up most of the petty states that heretofore existed there: a particular, that of Gohud, including the celebrated fortress of Dholpur (see page 157 of the Memoir). He has also carried his arms northward to Delhi; and into the provinces of Mewat and Jyenagur; reducing many fortresses, and a considerable tract of country, which were heretofore successively possessed by the Jats, and Nudjuff Cawn. In fine, he possesses the person of the nominal Great Mogul, and all that can

* *Gaut*, or *Ghaut*, signifies either a pass through mountains, or a landing-place on the bank of a river. In the former sense, the term has been applied to the Carnatic, which is divided by ridges of mountains, abounding with passes and defiles.

be accomplished by virtue of his name. It would appear that Sindia's plans embrace too great a variety of objects at one and the same time: for, not long ago, his troops were compelled to retire from Bundelcund, in which they possessed most of the open country, the fruits of a very recent conquest. He seems bent on extending his conquests on the north and west: but time alone can discover whether he will succeed in establishing a permanent empire, on that side. The revenue of his paternal, or original dominions, in Malwa, &c. has been estimated at one crore of rupees per annum. It is difficult to ascertain what the value of his new acquisitions are, in their present state, for those portions of Agra, Delhi, &c. which he holds, having been so long subject to the depredations of contending armies, little benefit can be derived from them, at present *. Gohud, one of these acquisitions, is estimated at 20 or 30 lacks per annum. Holkar is supposed to possess 80 lacks per annum, in his share of Malwa. Sindia's capital city is Ougein, near the ancient city of Mundu, the capital of the Chiligi Kings of Malwa: and Holkar's capital is Indore, situated about 30 miles on the west of Ougein.

The Berar or Nagpour Rajah, Moodajee Boonslah (or Bonisla) possesses the principal part of Berar, together with the province of Orissa †. The remainder of Berar is held by the Nizam, or Soubah of the Deccan, who pays a *chout*, or fourth part of its clear revenues to Moodajee. On the west and south, the Berar dominions border on, or are intermixed with, those of the Nizam: on the N W and north, are the provinces of Bopal, Garry-Mundella, &c. tributaries of Poonah; together with the territories of Adjid Sing. On the east, the Nagpour territories thrust themselves between the British possessions in Bengal, and those in the northern circars, so

* These territories have formerly yielded 4 of 4 crores per annua: but they are now in a state of desolation, which it is impossible to form any idea of, without having actually beheld them. A. [This note is by a gentleman, who has been on the spot.] See also page lxxviii.

† Orissa, is nominally one of the British provinces, but we have observed in another place, that only a very small part of it, is subject to the Bengal government.

as to occupy near 180 miles of the country adjacent to the sea; and, of course, to break the continuity of their possessions on the sea coast. Moodajees dominions are very extensive, being in length from east to west 350 British miles, and in some places 200 from north to south. He does not possess all this in full sovereignty; for Ruttunpour and Sumbulpour are little more than tributary, and are governed by his brother Bembajee. We know less of the interior parts of Berar, than of most other countries in Hindoostan; but, by what we do know, it does not appear to be either populous or rich. (See Memoir page 144.) Nagpour is the present capital, and the residence of Moodajee; and it is situated about midway between Bengal and Bombay.

Cattack, or Cuttack, the capital of Orissa, is a post of consequence on the river Mahanuddy; as it lies in the only road between Bengal and the northern circars; and the possession of this city and its dependencies, gives the Berar Rajah more consequence in the eyes of the Bengal government, than even his extensive domain, and central position in Hindoostan.

Moodajee has been recognised (page lxxxviii) as a descendant of the original founder of the Mahratta empire, Sevajee. The sum of his revenue, is variously stated. Some have reckoned his part of Berar, at 84 lacks of rupees, per annum; and Cattack at 24; while others have allowed only 60, for his whole revenue. If we take it at the highest calculation, 108 lacks, he ought not to be considered in a formidable light, by the British power. But placing the actual sum of his income out of the question, his dominions are too widely extended, in proportion to their value, to form a powerful state. Cattack is no less than 480 miles, from the capital Nagpour. It has been well observed, that the ordinary cause of jealousy between neighbouring states, is done away, in the case of Bengal and Berar, by the nature of that part of the Berar dominions, which borders on Bengal; it being generally, woody and uninhabited: so that the virtual boun-

boundaries of both countries are removed to a distance from each other.

These are the principal of the countries reduced into the form of governments, by the Mahratta Chiefs: but so habituated are they to rapine and plunder, that few of the neighbouring states, but have, at one period or other, felt and acknowledged their power. Bengal and Bahar were, for a short time, subjected to a regular tribute; and the Carnatic, Mysore, the Nizam's provinces, the Decah, Bundelcund, and the southern parts of Delhi, have been frequently over-run. Their predatory excursions sometimes carried them 1200 miles from their capital. But the loss of the battle of Paniput in 1761, induced a degree of caution in their military enterprises: and from that period, their power appears to have been on the decline. Shut out of Bengal, Oude, and the Carnatic, by the British arms, and out of Mysore by Hyder's, their field of action has been much circumscribed; and the late war with the British power, discovered their weakness to all Hindoostan.

I am not sufficiently informed on the subject, to be able to particularize all the different provinces, or districts, that are tributary to the Mahratta states. Some have been already mentioned; and among others, the Rajpoot principalities of the Soubah of Agimere: and which, from their former importance and weight, in the internal politics of the Mogul empire, deserve particular notice.

In the early part of the present century, these states, collectively, appeared so formidable to the successor of Aurungzebe, that he was constrained to leave them in quiet possession of their independency; during the sedition of the Seiks, in Lahore (See page lxi). Vast have been the changes since that time: for what the disciplined armies of Aurungzebe and his sons, could not accomplish, has been effected by the Mahratta freebooters: so much easier is it to ruin a country, than to make a conquest of it. The history of the decline of the Rajpoot principalities, is foreign to the present work: it is sufficient to observe, that they are reduced to their present low state,

merely by the depredations of Mahratta detachments; which being composed of light horse, and accustomed to divide into innumerable small parties; they by their rapid and desultory movements, at once spread desolation, and elude the attacks of the inhabitants. This must be understood to relate only to the open parts of Rajpootana: the mountainous parts being yet free from their incursions.

RAJPOOTANA was divided into three great principalities, under the names of Oudipour, Joodpour, and Ambeer, (or Amere) now better known by that of Joinagur, or Jyenagur. Oudipour was also named Meywar, or Midwar; and Joodpour, Marwar. In Acbar's division of the empire, these principalities were classed as belonging to the soubah of Agimere, which is sometimes called Marwar. It is not an easy task, by means of the geographical matter extant, to assign the precise limits and dimensions of these principalities; which occupy the space between the western confines of Agra, and the N E part of Guzerat; and between the sandy desert (or Registan) and Malwa: that is an extent of 330 British miles from N E to S W; and 200 broad, in the widest part. Their relative situations, and comparative dimensions, may be seen in the map; where Jyenagur or Jyepour, will be found to lie to the north-east; Oudipour to the S W; and Joodpour to the N W, bordering, angularly, on the other two. Pere Wendell's MS. account of these states, from whence I have extracted many of the above particulars, states the revenues of Oudipour at 10 lacks of rupees, Marwar at 40, and Jyenagur at 40, per annum, in the year 1779*. The two former are very mountainous, with a sandy soil, in the valleys: the latter is the most fertile, and was, about the middle of this century, in a high state of improvement, under the government of the celebrated Rajah Jyefing, or Jesling; who founded the new capital of Jyepour, which has had the effect (not unusual in Hindoostan)

* The whole revenue of the soubah of Agimere, in the time of Acbar, appears to have been only about 75 lacks. Aurungzeb's said to have doubled the land-tax on the Rajpoots: and Agimere is accordingly stated in Mr. Frazer's account, at 163 lacks of rupees.

of changing the name of the province to that of the capital. P. Wendel represents Jyepour as a place of great wealth and commerce in 1779, being the *entrepot* of the principal part of the goods, that are brought from every quarter of India. The Rajah built also an observatory in his capital, and invited Pere Boudier to it, in 1734. It is feared that the confusions that have so long prevailed in this province, must have greatly reduced the wealth and importance of the capital. We have mentioned before, that Sindia receives the tribute of all the three Rajpoot provinces, and converts it to his own use: and that he had made some considerable conquests in them, particularly in Jyenagur.

It is probable that in early times, the whole Rajpootana constituted one entire kingdom, or empire, under the Rana or Prince of Oudipour, who has in all times, since we had any knowledge of his history, been considered as the head of the Rajpoot states. A long established custom of homage to a temporal Prince, from those who do not acknowledge his superiority in any other way, seems to prove the existence of real power in the hands of his ancestors. In modern times the Rana of Oudipour seems to have been considered somewhat in the same light as the general of the Amphyctions was in Greece. Chetore was the ancient capital of the Rana; a place much celebrated for its strength, riches, and antiquity, when it was taken and despoiled by Acbar in 1567: Oudipour is the present capital.

The Rajpoots are not confined entirely to the tract abovementioned, or even to the soubah of Agimere: since some inferior tribes of them are settled in Bundelcund, and in Gurry-Mandellai. Others, according to Thevenot, are settled in Moultan; and indeed he represents Moultan as the original country of the Kuttries, from whom the Rajpoots sprung. (See page 93 of the Memoir.)

Of the countries of Nagore, Bickaneer, Jasselmere, and those bordering on the lower part of the course of the river Puddar, and on the sandy desert, we know little at present, except that they form

a number of petty Rajahships, and are understood to be mostly inhabited by Rajpoots.

The Rajpoots are ordinarily divided into two tribes or classes, those of RATHORE, and CHOHAN, or SEESODYA. Marwar, or the N.W. division of Agimere, is the proper country of the former; and Meywar, or Oudipour, of the latter. The reader will be pleased to observe, that Cheitore is also synonymous with Oudipour, or Meywar. The Rathore tribe were originally the most numerous of the two. It has often been asserted, and by the late Col. Dow, among others, that the Mahratta Chiefs had their origin from the Rathore tribe: and to countenance this opinion, the etymology of the name Mahratta, has been drawn from RATHORE; prefixing to it, MAHA, or Great. We have seen, however, in page lxxix, that the fact is very different, and rests on the foundation of historic records: the term Mahratta being derived from Marhat, or Marheyt, the name of the province in which Sevajee first established his independency; and this etymology appears to be perfectly natural. And by the same rule, Sevajee must have been of the Seesodya tribe, as drawing his lineage from Oudipour; and not of the Rathore tribe, as erroneously represented.

Of the five northern circars, Cicacole, Rajamundry, Ellore, and Condapilly*, are in the possession of the English; and Chintoor is in the hands of the Nizam. The four first occupy the sea coast from the Chilka lake on the confines of Cattack, to the northern bank of the Kistna river, forming, comparatively, a long, narrow slip of country, 350 miles long, and from 20 to 75 wide. The nature of the country is such, as to be easily defensible against an Indian enemy, it having a barrier of mountains and extensive forests on one side, and the sea on the other; the extremities only being open. Its greatest defect is in point of relative situation to Bengal

* These circars, or provinces, were originally denominated from their position in respect to Madras, on which they depend: and the term *northern circars* has at length been adopted by the English in general.

and Madras, it being 350 British miles from the first, and 250 from the latter; so that the troops destined to protect it, cannot be reckoned on, for any pressing service that may arise at either presidency. The circars, in point of strictness, appertain partly to Golconda (or the Deccan) and partly to Orissa; and are held of the Nizam on condition of paying him a stipulated quit rent. When the French took possession of the five circars, in 1753, they were valued at about 43 lacks of rupees per annum. The English never possessed Guntoor, which was estimated at near 7 lacks of the above sum; so that 36 lacks (360,000l.) should be taken for the true value of the English possessions in the circars. In 1784, they were reckoned to produce about that sum. It would appear that the Nizam, by retaining Guntoor, has more than an equivalent for the *posbush* or tribute, which is 5 lacks per annum.

The possessions of the Nizam, or Soubah of the Deccan (a younger son of the famous Nizam al Muluck) comprise the province of Golconda, that is, the ancient province of Tellingana, or Tilling, situated between the lower parts of the courses of the Kistha and Godavary rivers, and the principal part of Dowlatabad; together with the western part of Berar, subject (as has been said before) to a tribute of a chout, or fourth part of its net revenue, to the Berar Mahratta. The Nizam has the Paishwah, or Poonah Mahratta on the west and north-west; the Berar Mahratta on the north; the northern circars on the east; and the Carnatic, and Hyder Ally on the south. I am not perfectly clear in my idea of his western boundary, which, during his wars with the Mahrattas, was subject to continual fluctuation: but I understand generally that it extends more than 40 miles beyond the city of Aurungabad, westwards; and comes within 80 miles of the city of Poonah: and that on the S W it goes considerably beyond the river Beemah, and to the borders of Sanore-Bancapour. His capital is Hyderabad, or Bagnagur, situated on the Moudri river, near the famous fortress of Golconda.

The

The districts of Adoni and Rachore, which were in the hands of Bazalet Jung (brother to the Nizam) during his life time, are now in the hands of the Nizam. The Solorapour, or Sollapour Rajah, on the west of the Beemah river, together with some other Rajahs, are his tributaries.

Probably the Nizam's dominions, including his tributaries and feudatories, are no less than 430 miles in length, from N W. to S E, by 300 wide. Till he took possession of the Guntoor circar in 1780, his dominions nowhere touched on the sea coast.

The Guntoor circar (called also Mortizanagur and Condavir) occupies the space between Condapilly, the southmost of our four circars, and the northern part of the Carnatic; extending along the sea coast of the bay of Bengal more than 30 miles. The possession of this district to the English, would have been extremely eligible, as well for the purpose of shutting out the French nation from the Deccan, as to keep open a communication with the northern circars, and to preserve the continuity of our possessions, and those of our allies. Although the maritime parts of this circar are flat and open, yet the interior part of it contains some very strong fortresses, and posts. The Nizam took possession of it on the death of his brother Bazalet Jung, and still holds it.

It has not been in my power to obtain, even, a tolerably exact account of the sum of the Nizam's revenue; or, of his military establishment: the latter, however, is far from being respectable, on the score of discipline. The former has been ever varying, and generally diminishing; by reason of the encroachments of the Poona Mahrattas, and the Mysoreans: it is said to be reduced so low as 130 lacks of rupees, annually. But besides this sum of actual revenue, it must be taken into the account, that he has depending on him, many Jaghiredars, who hold their lands on the tenure of military service.

The dominions of Mahomed Ally, Nabob of the Carnatic, and an Ally of the East India Company, commence on the south of the

the Guntoor circar, and extend along the whole coast of Coromandel to Cape Comorin. It must be understood that I mean here to include Tanjore, Marawar, Trichinopoly, Madura, and Tinevelly, all being appendages of the Carnatic. Under this description, the Carnatic is not less than 370 British miles in length from north to south, but no where more than 120 wide, and commonly no more than 75. Such a long, narrow, tract of country, bordered by an active and powerful enemy, whose territories are, moreover, of a compact form, and his force more readily collected, must always be subject to have its distant provinces cut off from its assistance: or if it divides its force, for their separate defence, the safety of the whole will be endangered.

* The Carnatic anciently comprised all that part of the peninsula that lies south of the Godegama and Tungebadra rivers, from the coast of Coromandel eastward, to the Gout mountains westward, and was divided into *Bella-Gaut* and *Payen-Gaut*, or the upper and lower Gauts*; the former being the western part, and containing the districts which now compose the country of Tippoo; and the latter, the eastern part, or the Carnatic according to its present definition.

The revenue of the Nabob is stated at about a million and a half sterling, annum: out of which, he pays a subsidy of 160,000l. to the East India Company towards the expence of their military establishment. The evils attendant on the improvident conduct of the Nabob, were severely felt, during the late war, and ought to be cautiously guarded against, in future.

The British possessions in the Carnatic are confined, chiefly, to the tract called the Jaghire, which extends along the coast, about 108 B. miles, and 47 inland, in the widest part. Its revenue is reckoned 150,000l. Besides the Jaghire, there are lands dependant on Cuddalore, but the amount is not considerable. The whole

* See the term *Gaut*, explained in page cxxxviii.

amount of the land revenue, dependant on Madras, including the circars, has been stated, in page cxiv, at 725,000l. per annum.

The dominions of Tippoo Sultan, who styles himself Regent of Mysore, begin on the west of the ridge of mountains beyond Dalmacherry, Sautgud, and Attore; and extend southward to Travancore and Madura; northward to Socuda and Vissapour (inveloping Adoni, the territory of the late Bazalet Jung) north-eastward to Guntoor and Ongole; and westward to the sea. They comprehend, generally, the provinces of Mysore, Bednore, Coimbettoore, Canara and Dindigul; besides his late father's conquests to the northward, which are Meritch, or Meritz, Soonda, Chitteldroog, Harponelly, Sanore-Bancapour, Roydroog, Gooty, Condanore, Canoul, and Cuddapah.

Tippoo's present territory exceeds very considerably, both in extent and revenue, that of his rival the Nabob of Arcot: but probably it will, for some time at least, require a Prince of considerable talents, to prevent a state, composed of such discordant parts, from falling to pieces: A descendant of the Hindoo King of Mysore, whom Hyder dethroned, is living; and kept a state prisoner at Seringapatam, Tippoo's capital. He is occasionally shewn to the populace: and the circumstance of his being permitted to live, is a strong proof how much the popular prejudices prevail, in favour of the family of their ancient Kings. It was part of the plan of operations of the southern army, under Colonel Fullarton, in 1783, to march from Coimbettoore to Seringapatam, in order to liberate this Prince, and encourage the people of Mysore to throw off their allegiance from Tippoo: and it was the opinion of many sober persons that it might have succeeded, if circumstances had permitted Col. Fullarton to undertake it. The general character of Tippoo, is that of a man of high ambition; with great abilities for war and finance; cruel, to an extreme degree; and obstinately attached to his

his schemes. He is unquestionably, the most powerful of all the native Princes of Hindoostan; but the utter detestation in which he is held by his own subjects, renders it improbable that his reign will be long. His dominions are very extensive; and although the imperfect state of the geography of the western part of the peninsula, does not permit me to mark their northern boundary, yet it is pretty certain that it touches the river Kistnah, on the south of the city of Vissampour: and therefore, the extent of Tippoo's territory, or kingdom, from the valley of Ootampaliam on the south, to the Kistnah on the north (or rather N N W) cannot be less than 550 British miles. In breadth, it is very unequal: in the widest place, that is, in the northern part of the peninsula, the breadth is at least 330 miles; but less than 150 in the parallel of Trichinopoly; and further southward, it ends in a point. In page xcvi, its area has been compared to that of Great Britain; which is taken at 96,400 square British miles: and the country of Tippoo is supposed to contain 21 square degrees; which in the parallel of 14° , produce about 97,650 B. miles. By the peace of 1782, Hyder was to relinquish all, but his *ancient possessions*: how far his successor has fulfilled the terms of the treaty, I am not informed: but the term, *ancient possessions*, was too general, or rather too vague, to be understood in any particular sense.

The revenue of Tippoo, has been stated at four crores of rupees, or as many millions sterling. His military establishment is very great; being no less than 72,800 regulars, including 740 Europeans under the command of French officers: beside troops in the frontier garrisons, to the amount of 49,000. The remainder of his force, consists of irregulars of various descriptions, and amounts to 33,000 and upwards: so that the whole force of Tippoo, is reckoned 155,000; of which, near 73,000, are of a class much superior to any troops that have ever been raised and disciplined by
a native:

a native of India *. His desire of extending his kingdom, will keep him at perpetual variance with the Poonah Mahrattas, or the Nizam, or both ; as it is only on their side, that any acquisitions can be made, without quarreling with the English. Hyder long meditated the conquest of the Travancore territory, situated at the extreme of the peninsula ; but was prevented by the English. Tippoo, is said to have intentions of the same kind. The reader may easily collect, from a cursory view of the map, how hurtful to the interest of the Carnatic, such a revolution would prove : since it implies also the transfer of the Cochin territories, and all the tract lying on the west of the Gauts.

* I have been favoured with the following particulars, relating to Tippoo Sultan's military establishment ; and which may be depended on.

REGULARS:

Cavalry	-	-	27,400
Sepoy Infantry, Hindoos and Mahomedans	-	-	36,000
Topasses (or Hatmees) that is, the descendants of Portuguese and other Europeans, Infantry	-	-	7,300
Europeans, Cavalry	-	200	
Europeans, Foot	-	540	
			740
Artillery Corps, consisting of Europeans, Topasses, &c.	-	-	1,300
			72,830

Guns attached to the Battalions 110

Garrisons on the Frontiers.	Horse	21,000
	Foot	28,000
		49,000

Irregulars, armed in various ways 7,000

Auxiliaries from the Rajahs of Rydroog, Darwar, Harponelly, Sanore, &c.

Horse	10,300
Peons (Irregulars)	13,000
	26,300

RECAPITULATION.

Regulars	72,830
Garrisons	49,000
Irregulars	7,000
Auxiliaries	26,300
Total	155,130

M E M O I R

OF A

MAP OF HINDOOSTAN, &c.

SO great an extent of country is contained in this map, and the quality of the materials is so various in different parts, that it became necessary, in order to prevent confusion, to divide the account of its construction into separate sections, agreeable to the natural division of the country; and, in some measure, to the nature of the materials. It is accordingly divided into seven sections:

The first contains the sea coasts and islands.

The second, the surveyed tract on the side of Bengal; or that occupied by the Ganges and its principal branches, as far west as the city of Agra.

The third, the tract occupied by the Indus and its branches.

The fourth contains the tract between the Kistna river and the countries traversed by the Ganges and Indus, that is to say, the middle parts of India.

The fifth contains the peninsula south of the Kistna.

The sixth, the countries situated between Hindoestan and China; namely, Thibet, Bostan, Affan, Pegu, Aracan, Ava, and part of Siam: and

The seventh, and last, contains Tables of distances between the principal cities, &c.

But, before I proceed to the particulars of the construction of the map, it will be necessary to explain the itinerary measure adopted

in places where no surveys have been taken. The usual measure of this kind in Hindoostan, is the *cofs*, or *crores*, commonly estimated at two British statute miles. I have not been able to get the true length of the *cofs*, as fixed by Acbar, and other Emperors; and even if I had, it would be of no use in the present enquiry, as my Hindoostanny itineraries and tables are in computed *cofses*.

It may reasonably be expected, that in a country of half the extent of Europe, the estimated length of the itinerary measures, although of the same denomination, must vary in different parts of it. It is no more than what happens in different provinces of the same kingdom, in Europe. But as far as we have any *data* for making a just comparison, the *cofs* does not vary so much as one-sixth part over the whole country; and between the northern and southern extreme of India, (that is, in an extent of about 1700 miles) the difference is not more than one-sixteenth part. The miles vary much more in their proportions, in the different parts of Europe.

Taking the medium of the *cofs* throughout Hindoostan, and the Deccan, there will be about 40 of them to a degree of a great circle on the globe: that is, each *cofs* is about a geographical mile and half. But this is to be understood of horizontal measure; in which the windings and inflections of the roads are allowed: for the estimated routes could not be applied to geographical purposes, by any other rule. The *cofs*, in road measure, is about one statute mile and nine-tenths; or at the rate of 190 British miles to 100 *cofses*; one part in seven, being allowed for winding, when the line of distance is extensive. Or, seven miles of road measure, are allowed to produce six miles horizontally, or in a direct line.

In Malwa and its neighbourhood, the *cofses* are larger than any where else, and are about 1,7 geographical miles, or 35 to a degree. And on the road from Baglana to Masulipatam, they are so short, that 46 are required to make a degree. But having only one example for the latter proportion, I shall found no rule on it. The proportions that I have adopted for Hindoostan, Malwa, and the Carnatic,

Carnatic, from a great number of examples, are respectively 1,43; 1,71; and 1,6 of geographical miles to a horizontal coss; or 42, 35, and 37½ to a degree of a great circle. The coss of Hindoostan proper, is therefore shorter than any other, and prevails throughout the greatest extent of country. There is again in Nagpour (the ancient Goondwanch) a *Goandy* coss, which by the medium of all the accounts I could get, is about 2,76 geographical miles, reduced to horizontal distance, or 19, or 22 to a degree. This measure appears to be in use by the natives, throughout Mundilla and Boggilcund, as well as in Nagpour; and sometimes occasions great confusion in the reports of the *scissis*, or couriers; however, they have a computation of Hindoostanny cosses also, in the same country; and the proportions agree in general remarkably well with that scale, between the Bengal Provinces and Aurungabad, and between Mundilla and Hyderabad.

Having mentioned the windings of the roads, it may not be improper to give the result of my enquiries on this head, for the benefit of those who may have itineraries, kept in estimated distances, to work up. One in seven is allowed as above: and is what will be found to take place in large distances, in such countries as are intersected by deep rivers, or watercourses: or in such as have no artificial roads; and where those on the natural level, have obstacles to surmount. The degree of winding of roads, in different countries, is, (*ceteris paribus*) according to the state of improvement, in which the roads are. In India, the roads are at best, little better than paths, and whenever deep rivers, (which in that country are frequent, and without bridges) morasses, chains of mountains, or other obstacles, oppose themselves to the line of direction of the road, it is carried round, so as to effect the easiest passage; and for this reason the roads there, have a degree of crookedness, much beyond what we meet with in European countries, where bridges are laid over every considerable watercourse, and where hills are either levelled, or reduced to a convenient degree of acclivity; and after
all,

all, expences saved in many cases, by the difference of labour between the smoothing of the direct road, and the forming of a road on the natural level. But the proportions, must of course vary with circumstances; and may be only one in ten, in a dry, open, country, and one that has a tolerably even surface: but this happens so rarely to found any general rule on. As the line of distance increases, a greater degree of winding will take place; or, a short distance will always be on a straighter line than a long one: for in countries where the management of the roads is not arrived at a high degree of perfection, the road through a kingdom will be made up of portions, consisting of the particular roads leading from one city, or principal town, to another, although they may not lie in the general line of direction; and then there will be a general winding, added to the particular one: and the above proportion of 1 in 7, is applied to this compound winding. And, added to this, in very long distances, some natural obstacles, will, very probably, oppose itself: an arm of the sea; a river of difficult passage; a morass; or an impassable ridge of mountains; and change totally the direction of the road: whilst the parts, on each side of the obstacle, might have but an ordinary degree of winding: and it is seldom, but that one or other of these, occurs in the space of 100, or 150 miles. Probably 1 in 8* may be a pretty just general proportion for distances of about a 100 miles: that is, 8 miles of the road, will be seven direct; or what is commonly termed *ditto*: and where the extent is from 200 to 300 miles, 1 in 7.

Measured distances in Hindoostan, do not often occur, where, at the same time, the true horizontal distance is given, except in Bengal: and that is a country too full of deep rivers, lakes, and morasses, to serve as a general standard. In the Carnatic, a dryer country, the medium of winding, in distances of about 100 miles, is 1 in 9. In England, as far as we can trust the maps (which may

* This is M. D'Anville's idea, p. 43 and 46 of his *Considérations Géographiques*.

be done, where the distance consists chiefly of *difference of latitude* 1 in 11 is the proportion, in distances of about 100 miles; and in very great distances, such as Edinburgh, 1 in 7.

It may happen that the direct route may lie through a desert or an ill-governed country; in which case, travellers will avoid the way, in which famine, or robbery, threatens them, and by these means be carried out of the true line of direction; but it is obvious that no rule can be given for such cases. Upon the whole, the degree of winding, as far as depends on natural causes, must be estimated by the compound ratio of the length, of the line of distance, and of the nature of the country, as to evenness, dryness, and openness. And of course, some local knowledge of it will be required, in order to correct the distances in a just degree.

The term *cos* is of high antiquity; and that of *cosid*, or courier, appears to be derived from it. It seems that the measure of the *cos*, established by the different Emperors of Hindoostan, has varied considerably at different times; and has always been longer than the computed one. That fixed by Acbar appears to have been about 2 British miles, and a sixteenth. But of this, I have no farther proof, than what results from the comparison of the different measures of the road between Patna and Moorshedabad; being a portion of the great road from Delhi to Bengal, measured by order of one of the Emperors.

M. D'Arville concludes his enquiry † into the length of the *cos*, by determining the number in a degree, on a medium, to be 37; but it must be observed, that he had no measured lines with which he could compare his estimated distances. On the other hand, in the respective distances of Candahar, Cabul, and Attock, as described by him, each degree contains 47 of Tavernier's *cos*ses.

* Those who wish for a general rule for changing horizontal distances into road distance, in their common references to maps; may break the line of distance, (if very long) into portions of not more than 100 or 150 miles; and then add to the whole sum of the distances, so obtained, one eighth part. These portions should be contrived, so as severally to include the spaces, between the points; that diverge most from the general line of direction of the whole road. By this means, the errors arising from the compound winding, will be avoided.

† *Belaircissements*, p. 14.

SECTION I.

The SEA COASTS and ISLANDS.

CALCUTTA is the point I shall set out from, as well from its being determined by several observations of longitude and latitude, as from its having a measured line of considerable extent stretching from it both to the east and west. I shall first pursue the route westward to the mouth of the Indus; and then return to Balasore, and go eastward to the entrance of the strait of Malacca.

Calcutta, the capital of the British possessions in India, as being the residence of the General Council, has its citadel placed in latitude $22^{\circ} 33'$ north; and in longitude, by a medium of the observations of four different gentlemen, $88^{\circ} 28'$ east from Greenwich*.

Balasore, situated about 101 geographical miles† from Calcutta, is the extreme point of the Bengal survey on the S W; or on the quarter towards Madras. Col. Pearse's return from the Carnatic, after the termination of the late war, afforded an opportunity of carrying a measured line from Madras to Balasore, which had long been a *desideratum*; as the exact positions of the intermediate stations of Masulipatam, Visagapatam, Ganjam, and Cattaek, points on which many others eventually depended, were wanted: and although there might be no great reason to suppose that Masulipatam and

* All the latitudes mentioned in this work, being north of the Equator, and all the longitudes east of the meridian of Greenwich, I shall in future mention only the terms latitude and longitude, leaving the species of each, to be understood.

† I have made use of Geographical miles, or those of 60 to a degree, in the account of the construction of the map; and of British statute miles in giving the comparative extent of countries. They are distinguished by G. miles, and B. miles.

Visagapatam were much out of place, in the former map, yet Ganjam and Cattack were doubtful. Col. Pearse's industry and attention have amply supplied what was wanting, within this line. He directed the whole to be measured with a perambulator, and corrected each day's work, or at least, every considerable interval, by observations of the latitude; and the general course being little more than 3 points from the meridian, the differences of latitude, were applicable to the correction of the distance thro' each particular interval: and for a check on the whole, we had already in our possession, observations of longitude repeatedly taken at Calcutta and Madras. The whole extent of Col. Pearse's measured line, in road distance, was near 900 British miles; a work of no small labour.

The longitude of Fort William, the citadel of Calcutta, as abovesaid, taken at $88^{\circ} 27' 45''$ *, from the medium of 4 observers, and that of Madras $80^{\circ} 24' 40''$ †, from the medium of 3 observers, gives a difference of meridians of 8 degrees, 3 minutes. It remains then, to compare with this, the difference of longitude found by Col. Pearse's measured route, as communicated by Mr. Pringle in the map drawn by him, and sent to the East India House.

Balafore; by the survey, is $1^{\circ} 26' 30''$ west of Fort William, and must therefore be in $87^{\circ} 1' 30''$. Col. Pearse reckons it $1' 15''$ more westerly; but I adhere to the survey. From Balafore to Ganjam, in lat. $19^{\circ} 22'$, Col. Pearse reckons 55 miles of westing, or $1^{\circ} 41' 26''$ difference of longitude; which brings Ganjam in lon. $85^{\circ} 20' 4''$ ‡. And from Ganjam to Madras he made $5^{\circ} 2' 18''$ west: whence the

* Hon. Thomas Howe	88° 33'	} Medium 88° 27' 45"
Rev. Mr. Smith	88 28	
Mr. Magee	88 24	
Capt. Ritchie	88 26	

To which may be added the French observation at Ghyrretty, which place is 1' east from Calcutta

† Mr. Howe	80° 29'	} Medium 80° 24' 40"
Mr. Dalrymple	80 24	
Mr. Topping	80 21	

‡ Mr. Mearns's observation was $85^{\circ} 17'$ by C and D, 1770.

longitude of Madras, would be $80^{\circ} 17' 44''$. Here is found an excess of about 7 minutes difference of longitude, more than the observations give. But in examining the map abovementioned, it appears that the difference of latitude between Ganjam and Madras by account, exceeded that by observation $8' 30''$; and if this is to be imputed to excess of distance (which is highly probable) an excess of longitude must also have taken place; and this error will amount to about $6' 48''$; or nearly the difference in question. This trifling error of 7 minutes in a difference of meridians of 6 degrees and a half, to whatever it may be owing; whether to over-measurement by the wheel; variation of the compass; defects in the instruments; or errors in the observations of longitude; or partly to all these causes; is very immaterial, to general geography. The result shews, that we may consider the difference of meridians between the two places, as determined near enough for the purposes of navigation, or general Geography.

I must not omit to mention that Capt. John Ritchie, by direction of the Bengal Government, in 1770 and 1771, took the bearings and distances in a general way, from Madras to Balasore; and his result came within one minute of the longitude by observation. But some of his intervals were not well proportioned. His position of Masulipatam, indeed came out only $1'$ to the east of Col. Pearie's; but Visagapatam was $7'$, and Ganjam $22'$ more westerly.

Although Col. Pearse's route serves to fix most of the principal places, on or near the coast, yet oftentimes it deviated considerably, and for a length of space, from the coast; as between Balasore and Jagarnaut; and between Visagapatam and Ongole. These blanks are supplied from the materials of Capt. Ritchie, Major Stevens, Major Polier, Mr. Cotsford, and others.

First, from Balasore, to Point Palmiras. This was done by Capt. Ritchie, by a series of triangles, formed by three surveying vessels; and corrected by observations of latitude. The result, placed Point Palmiras, directly south of Balasore: that is, in lon.

87° 1' 30"; lat. 20° 44'. From Point Palmiras to Jagarnaut Pagoda, the coast was traced in a more cursory manner; and accordingly, the bearing and distance between Balasore and Jagarnaut is very differently given by Col. Pearse and Capt. Ritchie: the account of the former being only 54' 30" difference of longitude; and that of the latter, 1° 16'. This very considerable difference is too striking, not to be particularly noticed; and requires that some observations should be made with time-keepers, to ascertain the relative positions of Jagarnaut, Point Palmiras, and Balasore. Wherever the mistake may lie, it is of great importance to have it rectified: for if Col. Pearse's bearing be true (and there appears no reason to doubt it) there must be a very considerable error in the course between Jagarnaut, and Balasore road, in Capt. Ritchie's chart.

The longitude of Cattack is scarcely altered from what it was in the former map of India; where it was placed on the authority of Capt. Campbell, in lon. 86°. It is now in 86° 1' 30"; and its latitude stands as before.

From Jagarnaut to Ganjam, the particulars of the coast, are from Col. Pearse's map, collated with those of Ritchie's and Campbell's. From Ganjam to Poondy, is taken from the map of the Itchapour district; and Col. Pearse's route on it, which may be traced from Ganjam to Bindi (near Poondy) furnishes the means of correcting the compass of that map, which was faulty, in a very considerable degree. Bindi serves as a connecting point for the two maps; as Nauparah or Nowparah, a little farther to the S W. does for Pearse's, and Cridland's map of the Tickley district. The coast between Poondy and Bimlepatam is sketched from Lieut. Cridland's map, from Major Polier's journal, and other MSS. From Bimlepatam to Visagapatam is from Col. Pearse; and from thence to Coringa from a MS. map, compiled during Col. Forde's expedition to Masulipatam, in 1759; collated with Capt. Ritchie's map.

As there have been some observations taken at Visagapatam to ascertain the longitude, it is proper to take notice of them, and compare the result with the longitude deduced from Calcutta to Ganjam, by Col. Pearse's line. This gives 107,1 miles of sailing, or $1^{\circ} 52' 54''$ difference of longitude, from Ganjam to Visagapatam; from which if we deduct the proportion of the error in the distance (see page 10) the true difference of longitude will be $1^{\circ} 50' 33''$ which taken from $85^{\circ} 20' 4''$, the longitude of Ganjam, leaves $83^{\circ} 29' 25''$ for that of Visagapatam. But Col. Pearse's observation was $84^{\circ} 23' 30''$ and Mr. Russell's $83^{\circ} 24' 30''$. Its latitude is $17^{\circ} 42'$.

From Coringa to Masulipatam, the figure of the coast is from Major Stevens's; as Col. Pearse's route goes far inland, by way of Rajamundry, Ellore, &c. and does not again approach the coast near enough to determine its position, till it comes to Vantipollam, near Ongole. These maps of Major Stevens's and of Col. Pearse's join at the points of Siccacollum, on the bank of the Kistnah, at Rajamundry, and at Samulcota. These 2 maps differ considerably in the extent between Siccacollum and Samulcota, Major Stevens's giving 6½ miles less than the other (error of distance allowed) but, I believe, Major Stevens's distance was measured, only between Siccacollum and Narlapour.

Masulipatam has its position very satisfactorily determined, by Major Stevens's measurement from Siccacollum, a place in Col. Pearse's map. It is 17,4 G. miles east; and 3,3 south of it; and comes out $48'$ of longitude, east of Madras, or corrected (see again page 10) $47'$; its longitude being $81^{\circ} 12'$, lat. $16^{\circ} 8' 30''$.

From Masulipatam to Madras, the figure of the coast, is generally from Capt. Ritchie, corrected in certain points by the land survey, of Col. Pearse. For as the latter came close to the coast at Vantipollam, Carwaree, and Ranceapatam, it appeared that Capt. Ritchie's chart required correction in the great bay between the latter place and Point Divy. I found it necessary also to reduce the

the point at the mouth of the Pennar river, and make it less prominent; as the distance from Nellore to the nearest sea coast, would otherwise have been much too great*. Indeed, it was not expected that a vessel, sailing along a flat, straight coast, without land-marks, could ascertain every small bending of the coast.

It is proper to remark, that the whole difference of longitude between Calcutta and Madras, in M. D'Anville's and D'Apres' maps, comes within a few miles of the truth, as they were in possession of the observations taken at Ghycetty and Pondicherry: but their maps are exceeding faulty in the detail.

The longitude of Madras, or Fort St. George, as was said before, (page 9) is taken at $80^{\circ} 25'$; and its latitude is $13^{\circ} 5'$. Pondicherry, by a series of triangles obtained by means of the Jaghire map, Wandiwash Hill, Pernaccoil, the red hills, and the difference of latitude, I make to be $25'$ of longitude, west of Madras; so that Pondicherry will be in 80° just. The medium of the different observations taken there, is $79^{\circ} 55' 40''$ †. Mr. Pringle, who measured the routes of Sir Eyre Coote's army, during the late war, makes the difference of meridians the same as I do, to a fraction. Its latitude is $11^{\circ} 56'$.

Cuddalore, in lat. $11^{\circ} 41'$, and lon. $79^{\circ} 45' 45''$, is the most southern point, determined by Mr. Pringle's measured routes: but the same gentleman furnishes us, with the bearing of Portonovo from that place; which, with its latitude $11^{\circ} 30'$, allows us to place it, almost to a certainty, in lon. $79^{\circ} 53' 30''$.

The position of Chillumbrum Pagoda, in respect of Portonovo, although so conspicuous an object to the sight, is variously represented. By the medium of what appeared to me to be the best authorities, I have placed them South-west $7\frac{1}{2}$ G. miles from Por-

* I have allowed Point Pennar to be 16 G. miles to the east of Nellore: most of the Mss. maps make it less.

† Con. de Temps	$79^{\circ} 57'$	} Medium $79^{\circ} 55' 40''$
Gentil	$79^{\circ} 53'$	
Topping	$79^{\circ} 57'$	

tonovo. Mr. Barker determined their position with respect to Devicotta, by a measured base, to be W. $16^{\circ} 45'$ N. 8 C. miles; which added to the former line from Portonovo, gives $79^{\circ} 55'$ for the longitude of Devicotta. Its latitude appears to be $11^{\circ} 21'$. Most maps allow a much greater distance between Portonovo and Devicotta, than what arises from the above construction; which is 9 G. miles on a S S E. bearing: and the foundation of the error, appears to me to be the giving the bearing of Devicotta from Chilatubrum, too great a degree of southing.

From Devicotta, southward to Negapatam, my authorities are some MS. maps; among which, is one, drawn by M. D'Anville, containing the principal positions between Madras and Tanjore; and seems intended for the basis of a map of the south Carnatic. Had M. D'Anville's differed from the others, I should have been inclined to give the preference to the result of his investigations; but it happens that all the different maps I have consulted, differ so little among themselves, that none make the difference of longitude between Devicotta and Negapatam more than $1' 45''$; and the medium of the whole is $1' 15''$ east; so that Negapatam may be taken at $79^{\circ} 56' 35''$ lon.; and latitude $10^{\circ} 46'$.

Thus Negapatam appears to be $3' 25''$ west of Pondicherry, or $28' 25''$ from Madras; and whatever error there may be, must arise chiefly between Devicotta and Negapatam. If there be any, the different geographers and map-makers have all fallen into the same kind of error. I observe that the different maps made of late years, in India, have considered Negapatam as being in lon. $79^{\circ} 53'$ to $79^{\circ} 54'$. I know not whence the idea is taken; but, whether founded or not, it differs but little from mine.

Negapatam is the southmost point, on the eastern side of the peninsula, whose position can be reckoned tolerably exact; unless we except Point Calymere, whose bearing being pretty well known from Negapatam, and its latitude determined with precision; may be considered as being nearly as well ascertained as
Negap-

Negapatam, on which it depends. Its latitude is $10^{\circ} 20'$; and longitude $79^{\circ} 54' 30''$.

No connected measured line that can be depended on, has yet been carried across the peninsula; Col. Fullarton's marches, measured by Col. Kelly, extending only to Palicaudchery; that is, not within 50 G. miles of the coast of Malabar; and those extended southward, through Madura and Tinevelly, ending at Cape Comorin. Fortunately, however, we have a series of longitudes by a time-keeper, deduced from Bombay, by Capt. Huddart, and extended at intervals, along the whole coast, to Anjenga; of which, more will be said hereafter.

Col. Fullarton's march into the southern countries of the Carnatic, gave an opportunity of measuring the distances, and ascertaining the relative positions of Tanjore, Trichinopoly, Madura, Coimbatore, Palicaudcherry, &c. in respect of Negapatam, where the march commenced. The plan of these marches communicated to me from the East India House, bears the name of Col. Kelly; and is declared to be actually measured, through the points above-mentioned. We have to regret that the same attention was not bestowed in the march from Calicut to Palicaudcherry; the intended point of junction of the Bombay detachment, with that of Col. Fullarton: for, in that case, the exact width of the peninsula, had been no longer a matter of enquiry.

Trichinopoly comes out, by the above map of Col. Kelly's, to be $1^{\circ} 10'$ of longitude west from Negapatam; which taken from $75^{\circ} 56' 35''$, leaves $78^{\circ} 46' 35''$ for the longitude of Trichinopoly*. The latitude is $10^{\circ} 49'$.

Madura, by the same authority, is $34'$ difference of longitude west from Trichinopoly; that is, in lon. $78^{\circ} 12' 35''$. Here it must be noted, that great discordance arises between the different

* A map, drawn by Baron Westbe (of the Hanoverian corps) accords in this particular, and indeed, in every other material one, with that of Col. Kelly; but I have no knowledge how Baron W. procured his materials.

accounts of the bearing and distance between Trichinopoly and Madura, as given by Kelly, Montresor, and others. The two former differ 1,6 G. miles only, in distance; but Col. Kelly's bearing, gives 12,3 G. miles, more of westing, than Montresor's. And a third map, communicated by Mr. John Sullivan, has the same bearing with Kelly's, but exceeds it, 3,7 G. miles, in distance; thereby, increasing the westing 1,3 G. miles; and of course, exceeding Montresor's 13,6 G. miles, or $14^{\circ} 15'$ of longitude.

The latitude of Madura, I have not yet learnt. Col. Call's map places it in $9^{\circ} 52' 30''$; and Col. Kelly's difference of latitude from Trichinopoly, $53' 12''$, gives $9^{\circ} 33' 48''$.

The authority for the remainder of this line, through Palamcotta (or Tinevelly) to Poolytopu on the sea coast, westward of Cape Comorin, is from the map of Madura and Tinevelly, made under the direction of Col. Call (then Chief Engineer at Madras) and from Mr. Pringle's road distances; together with the latitudes of Palamcotta and Poolytopu. First, I find in Col. Call's map, $1^{\circ} 9' 30''$ difference of latitude S. between Madura and Palamcotta; and $18'$ of longitude, west. This would place the latter in $8^{\circ} 43'$ (Mr. Pringle informs us, that its latitude is $8^{\circ} 44'$) and in lon. $77^{\circ} 54' 35''$. Then, from Palamcotta to Cotate or Cotaar, on the west of the Gauts, Mr. Call's map gives $29' 12''$ difference of latitude S.; and $22'$ difference of longitude west; to which, if we add the deduction from Mr. Pringle's measured distance to Poolytopu, $5' 30''$ difference of latitude S.; and $6'$ difference of longitude west; the whole difference of latitude will be $34' 42''$ S. and difference of longitude $28'$ west; giving for the position of Poolytopu, lat. $8^{\circ} 9' 18''$; lon. $77^{\circ} 26' 35''$.

Poolytopu village appears to be situated on the sea coast, ENE. 4 G. miles from Cadiapatam Point; which point, by Mr. Howe,

* The bearing between Cotate and Poolytopu, is inferred from some MS. maps of no great authority, to be about SW $\frac{1}{4}$ W. The whole distance being only 8 G. miles, the difference of longitude would be but little affected, by any error that might reasonably be expected in the bearing.

is reckoned in lat. $8^{\circ} 7'$; and Poolytopu being about $1' 30''$ to the N. of it, should be in $8^{\circ} 8' 30''$, according very nearly with the above calculation. It must, I think, be acknowledged, that there is nothing in this deduction, that appears forced. Poolytopu, by the best account I can get, (a French MS. map in Mr. Dalrymple's collection) is $16'$ of longitude west of Cape Comorin; which Cape, by this account will be in lon. $77^{\circ} 42' 35''$.

We have some further light thrown on this subject by the measurement of the road, by Mr. Pringle, from Tanjore to Poolytopu. His whole road distance is $251\frac{1}{2}$ B. miles; and allowing 1 in 9* for the winding of the road, the horizontal distance will be $223\frac{1}{2}$ B. miles, or 193 G. miles; which, on the same bearing as the above deduction is founded on, ($S 33^{\circ} 40' W$) gives difference of latitude $2^{\circ} 41' 18''$; and westing 107.4, or difference of longitude $1^{\circ} 49'$. As Tanjore is in $10^{\circ} 46' 30''$, the latitude of Poolytopu comes out $8^{\circ} 5' 12''$, and its lon. $77^{\circ} 23' 15''$ (the longitude of Tanjore, by Col. Kelly's measurement, being $79^{\circ} 12' 15''$, deduced from Negapatam) and $16'$ added to it, gives for the longitude of Cape Comorin $77^{\circ} 39' 15''$, or $3' 20''$ to the west of the first calculation.

Again, if the proportion of 1 in 8 be adopted for the winding of the road, (a more common one) it produces 190 G. miles† of distance; and the latitude of Poolytopu will be $8^{\circ} 8'$; and its lon. $77^{\circ} 20' 50''$; and that of Cape Comorin $77^{\circ} 36' 50''$.

This is all the satisfaction that I have been able to obtain, concerning the longitude of Cape Comorin, as deduced from the eastern side of the peninsula. Something depends on the truth of the assumption, respecting the position of Negapatam; and still more on

* The road from Madras to Trichinopoly			
had a winding of	1 in	9	Medium 1 in 8½
Trichinopoly to Velore	1 in	10	
Madras to Tanjore	1 in	9½	
Wandiwall	1 in	8	
Carongoly	1 in	9½	
Arcot to Wandiwash	1 in	7	

† The distance varying on the lines of Kelly and Call is 186,25 G. miles.

the accuracy of the map of Tinevelly, the history of which, I am unacquainted with: but, I think, the near coincidence of Mr. Pringle's measurement, with it (for I reckon $3^{\circ} 20'$ but a trifle in general geography) is a presumptive proof of its general truth. It is understood that there is from 1 to 2 degrees of westerly variation, between Negapatam and Cape Comorin: if this be allowed, it will remove the Cape $4^{\circ} 30'$ further to the west; and place it, according to Kelly's and Call's lines in $77^{\circ} 38' 5''$.

Let us now turn to the other coast, and observe how Capt. Huddart's and Capt. Dundas's, deductions of longitude, from the west to Anjenga, accord with the reputed space, contained in the interval between Cape Comorin and Anjenga; which space, by Mr. Dalrymple's observation of the difference of longitude shewn by his time-keeper, in 1777, was $52^{\circ} 30'$. This, taken from $77^{\circ} 38' 5''$, leaves $76^{\circ} 45' 35''$ for the longitude of Anjenga.

Capt. Huddart's longitude of Anjenga, deduced by time-keeper from Bombay, reckoned in $72^{\circ} 40'$ is

-	-	$76^{\circ} 39'$
Capt. Dundas's	-	$76^{\circ} 30'$
Mr. Dalrymple's	-	$76^{\circ} 38'$

As Capt. Huddart's series of longitudes commenced at Bombay in lat. $18^{\circ} 58'$, and were continued to Anjenga in lat. $8^{\circ} 39'$, and then back again to Bombay; by which the error of his time-keeper was ascertained, and which was only as much as amounted to $2\frac{1}{2}$ minutes of longitude; we have every reason to be satisfied, with this series, as far as respects general positions: and indeed, geography is greatly indebted to the labours of this gentleman, who has presented us with the longitudes of 16 places on this coast, and by that means given the true general figure of it, which exhibits, to those who have been in the habit of contemplating it, a very different form, from what it ever did before.

I am of opinion that more dependance may be placed on Capt. Huddart's longitude of Anjenga, deduced from Bombay, in the manner abovementioned, than on any other account: but at the same

same time I have adopted Mr. Howe's observation of longitude at Bombay, as it appears the most consistent with other accounts. I do not mean by this, to determine on the merits of the different observations (of which indeed, I am incapable) but rather because it accords with the observation taken at Goa, and with the routes across from Negapatam to Tanore; and, as far as may be judged, with the deduction from Negapatam to Cape Comorin. It is true, that if Montresor's position of Madura is admitted, it will place Cape Comorin $12'$ farther eastward; and if the variation be not allowed, there will be $4' 30''$ more to be added; in all $16' 30''$, or the full difference between Capt. Howe's, and Capt. Huddart's observations; the one being $72^{\circ} 38'$, the other $72^{\circ} 54'$.

It now remains, after this investigation, to be shewn, in what manner I have compounded the above differences; that no distortion of the intermediate parts should take place. Anjenga, I have placed in $76^{\circ} 40'$, being the medium of all the different accounts, by observation; and by deduction from Negapatam. Mr. Dalrymple's difference of lon. $52' 30''$ to Cape Comorin, is then adopted, which places the Cape in $77^{\circ} 32' 30''$. Madura, is placed in $9^{\circ} 52'$, the latitude, given by Call; and its longitude is determined by Col. Kelly's distance from Trichinopoly, with the addition of 3 miles to it; that is, in lon. $78^{\circ} 11'$; and Palamcottah in lat. $8^{\circ} 42'$, and lon. $77^{\circ} 49' 15''$; according to the proportions furnished by Call and Pringle, between Madura and Poolytopu.

The form of the coast between Madras and Cape Comorin, is from various authorities. The survey of the Company's lands (or Jaghire) extends beyond Alemparvé. From thence to Negapatam, is from a French MS. map, collated with D'Anville's map of positions (above spoken of) and several particulars between Pondicherry and Portonovo, from Mr. Pringle's map of the marches. The mouth of the Coleroone is from an English MS. map. From Negapatam to Tondi, is chiefly from Major Stevens's, and my own observations: from Tondi to Good-water Island, Major Stevens's

alone : from thence to Tutacorin, Capt. Delafield's cursory survey : and the remainder to Cape Comorin, is from Col. Call's map of 'Tinevelly ; corrected occasionally by a printed chart, published by Mr. Dalrymple. It is not pretended that any of these points beyond Cuddalore, are ascertained with precision : but it is highly probable that Point Calymere cannot be out in its longitude, 4 minutes. Tondi has the bearing and difference of latitude from Point Calymere to correct its position ; and there was also a line drawn from it to Tanjore. Ramanad is fixed by the intersection of two lines, from Madura and Tondi ; and therefore must partake of the errors incident to Tondi, and Point Calymere. The Point of Ramiferam is also dependant on Tondi. When I constructed the map of India, in 1782, I concluded that the respective distances between Tondi, Trichinopoly, and Devicotta, had been measured, and that I worked on sure ground : but I have since been convinced of the contrary.

From Cape Comorin to Anjenga the particulars of the coast, appear to be either little known to us, or very ill described ; as the reports of it are various and contradictory. Between Cape Comorin and Ruttera Point, I took the particulars from a French MS. chart, the scale of which appears to be faulty ; for it gives only 35 G. miles of distance between Cape Comorin and Point Ruttera ; and the difference of latitude only $13^{\circ} 48''$, by which the latter would be in $8^{\circ} 14'$; whereas, it cannot well be under $8^{\circ} 20'$, according to Mr. Howe's observation : and Mr. Dalrymple observes that Ruttera Point is nearly 29 G. miles from that of Cadiapatam, which is about 19 from Cape Comorin. On these ideas, I have extended the distance to $46\frac{1}{2}$ miles ; and still Ruttera is only $28'$ from Cadiapatam. M. D'Après' account of the bearings and distances between Cape Comorin and Anjenga, gives $42'$ difference of longitude ; but then his chart contradicts that account, and gives $44\frac{1}{2}$; besides an absolute discordance in particulars. Mr. Pringle measured only $49\frac{1}{2}$ B. miles of road distance, between Poolytopu and Anjenga,

Anjenga, which cannot be more than 38 G. miles of horizontal distance, and falls short of my expectations, more than 9 miles. All that I could do, was to give the coast such a form, as my mind had conceived of it, by perusing these different accounts: at the same time, I confess, none of them appear conclusive: and until we know the exact position of Poolytopu, in respect of Cape Comorin, we cannot allow Mr. Pringle's measurement, to discredit in the least, Mr. Dalrymple's difference of longitude. We may here observe, by the way, that coasts of such rotundity of figure, as the termination of this great peninsula, are seldom so well determined, as those that embay, and where the same point remains long in view, and is of easy discrimination. Here the projecting points succeed each other too rapidly to allow a sufficient degree of precision in calculating either the bearing, or the distance. The latitude of Cape Comorin I have taken at 8 degrees.

Coylan or Quilon, a Dutch factory about 14 G. miles to the NNW or NW of Anjenga, is the next place, whose longitude is noted by Capt. Huddart; but as it cannot be expected that places differing only a few minutes of longitude from each other, can be determined with precision by this means; I shall pass on to Porca, another Dutch factory, in lat. $9^{\circ} 15'$, and longitude by Capt. Huddart $76^{\circ} 10'$. I can by no means reconcile this longitude with the Dutch MS. maps of this coast; for as the difference of longitude between Cochin and Porca by Capt. Huddart is only 8', the bearing ought to be $S 10^{\circ} E$; whereas in the map, it is $S 25^{\circ} E$. In order not to do too much violence to either report, I have allowed 16' difference of longitude, instead of the 8' of Capt. Huddart's, and the 10' of Capt. Dundas. The Dutch MS. in question contains the whole coast from Coylan in lat. $8^{\circ} 51'$, to Cranganore in lat. $10^{\circ} 23'$; together with that vast assemblage of lakes, that extend in some places 30 miles inland; and are the repositories of the waters that spring from the west side of the Gauts; the whole country hereabouts being very flat, marshy, and unwholesome. This

MS.

MS. map, which is also in Mr. Dalrymple's collection, contains a most valuable addition to the geography of this part of the peninsula.

Cochin, the principal settlement of the Dutch, on this coast, is the next place in Capt. Huddart's table of longitudes: and is reckoned by him, in $76^{\circ} 2'$; lat. $9^{\circ} 58'$. Capt. Dundas makes it $75^{\circ} 58'$; and M. D'Apres, in his new *Neptune Orientale*, $76^{\circ} 3'$.

Capt. Huddart has not noted the longitude of any place between Cochin and Tellicherry; in lat. $11^{\circ} 48'$: and there being only a single observation at the latter, I am inclined to pass over the consideration of it; and proceed to the next point of observation, Mount Dilla (or Delly) where 3 observations were taken. Mount Dilla is a remarkable promontory situated in lat. $12^{\circ} 1'$; lon. $75^{\circ} 2'$; or 1° west of Cochin.

We have two accounts of the bearings of the coast between these places; the one from M. D'Apres, the other has its particulars from different authorities. Neither of the two, differ essentially; and it is necessary to examine them carefully, as the result is to be used in comparing the longitudes of Paniany and Tanore, deduced from Capt. Huddart's observations; with that deduced from the marches of the Colonels Fullarton and Humberstone, across the peninsula,

M. D'Apres account is as follows:

Cochin to Cranganore	N. by W	$25\frac{1}{2}$ G. miles.
———— Paniany	- N $7^{\circ} 15'$ W	21
———— Calicut	- N N W	42
———— Mahé	- N W by N	30
———— Mount Dilla	N W	30

The whole, added together, gives a bearing of N $25^{\circ} 30'$ W, distance 144,5 G. miles; on which, the difference of latitude is $2^{\circ} 10' 30''$, and westing 10,62. But as the true difference of latitude

tude is only $2^{\circ} 3'$, there is an excess of 7.5 in northing, and 3.6 in westing: and the corrected departure, 58.4, gives the same difference of longitude as set forth in Capt. Huddart's table.

The second series of bearings and distances, are these:

Cochin to Cranganore (by the Dutch

	MS. map)	N 12° W	24.9 G. miles.
————	Paniany (by D'Apres)	N $7^{\circ} 15'$ W	21
————	Tanore (by D'Auvergne)	N 20° W	14.7
————	Calicut (by Dittop)	N $19^{\circ} 15'$ W	24.3
————	Mahé (by D'Apres)	N W by N	30
————	Mt. Dilla (by De Funck)	N W by W	28.4

This series, corrected by the difference of latitude, gives about $2'$ of longitude, more than that of D'Apres; a matter hardly worth considering.

Paniany is much the same in both accounts; and when corrected in position, by the proportion applied as above to D'Apres' series, will be in lat. $10^{\circ} 41' 45''$, lon. $75^{\circ} 55'$; or $7'$ west of Cochin. And Tanore, by D'Auvergne's account of its position, in respect of Paniany, will be in lat. $10^{\circ} 55'$, and lon. $75^{\circ} 49'$; or $13'$ west of Cochin.

It may be observed that De Funck's bearing of Mount Dilla from Mahe is N W by W, while that of D'Apres' is N W, and 1.6 more in distance. The fact is, that the compass in De Funck's plan is erroneous, the bearing of Mount Dilla being there W $22^{\circ} 45'$ N. from Mahé; and W $23^{\circ} 30'$ N. from Tellicherry; although the difference of latitude requires it to be almost a point more northwardly. The true bearing is still a *desideratum*, but I have obtained an approximation towards it, by means of bearings taken by two ships in Tellicherry road. By the medium of these, the bearing

of Mount Dilla from Mahé, appears to be $W\ 33^{\circ}\ 15'\ N.$ * or nearly $N\ W$ by W ; and the distance on De Funck's plan (which is understood to be measured) is 28.4 G. miles. This gives $24'\ 30''$ difference of longitude, or $75^{\circ}\ 26'\ 30''$ for the longitude of Mahé; whose latitude is $11^{\circ}\ 45'\ 18''$. And Tellicherry being by the same plan $3'\ 30''$ west of Mahé, will be in $75^{\circ}\ 23'$ lon. and lat. $11^{\circ}\ 48'$. Capt. Huddart's Table gives only $16'$ difference of longitude between Mount Dilla and Tellicherry, although stated above to be $21'$; but I have before observed that these sort of observations are more to be depended on, in great differences of longitude than in small ones; not to mention that in the calculation of these differences, the actual place of observation (that is, on board the ship at anchor in a road, or coasting along shore) is often adjusted to the place whose longitude is to be recorded, and which may be styled the nominal place of observation; by estimated distances.

Deducing the longitude back again from Mount Dilla to Tanore, a difference of $2'$ must of course be expected, as the two series of bearings give that difference in the longitude; and Tanore, will of course be $75^{\circ}\ 51'$, or $2'$ more easterly than the deduction from Cochin in the last page.

And now it will be proper to examine how far the lines of bearing and distance, drawn by Col. Kelly, and Lieut. D'Auvergne, across the peninsula, in the parallels of Trichinopoly and Tanore, agree with the results drawn from Capt. Huddart's observations.

Col. Kelly's survey of Col. Fullarton's march to Palicaudcherry, was, according to the paper accompanying it, in the East India House, measured the whole way. The result, according to the

* One of these bearings was $NW\ \frac{1}{2}\ W.$ at $\frac{1}{4}$ of a mile off shore: the other, said to be $2'$ off shore, was NW by W . By reference to a plan of the road, it appears that the latter station could have been only $1\frac{1}{4}'$ off shore, as the depth of water, was no more than $5\frac{1}{2}$ fathoms. We may observe that Mount Dilla should have bore more westerly from the observer that was nearest the shore, than the one farthest off: but there is seldom much nicety observed in taking bearing on shipboard, although so much depends on it. By calculation, the difference of the angle between an observer at $\frac{1}{4}'$ off shore, and another at Mahé, would have been $3^{\circ}\ 15'$; and that at $1\frac{1}{4}'$ off shore, $3^{\circ}\ 30'$. So that Mount Dilla would bear from Mahé by the first compass $W\ 36^{\circ}\ N.$; and by the second, $W\ 30^{\circ}\ 30'\ N.$: the medium of which, is $W\ 33^{\circ}\ 15'\ N.$

map, gives 184,25 G. miles of westing from Negapatam, or $3^{\circ} 7' 48''$ difference of longitude; placing Palicaud in $76^{\circ} 48' 47''$; and in lat. $10^{\circ} 51'$; that is, 5' north of Negapatam. Of the route of Col. Humberstone from Tanore to Palicaud, I have seen no less than 5 different plans; some of them differing 6' in longitude (that is, in distance) where the whole space did not exceed 57 miles. One alone among these had the author's name to it, and therefore demanded the preference: It was by Lieut. D'Auvergne. I am yet to learn, whether the distance was measured or not; but I should hope and expect it was, or a great part of it; for one of the copies, and which appears to have been transcribed during the march, distinguishes between the measured and estimated parts*; the former seeming to be the part marched over, and the latter, the part the detachment had yet to march. D'Auvergne's plan gives $56\frac{1}{2}$ G. miles of westing between Tanore and Palicaud, or $58' 15''$ difference of longitude; thereby placing Tanore in lon. $75^{\circ} 50' 32''$, according to the abovementioned longitude of Palicaud, deduced from Negapatam. The copies of this route, inserted in the maps of Col. Kelly and of Baron Wesebe, give only $50\frac{1}{2}$ G. miles, or $6\frac{1}{2}$ less of westing than D'Auvergne's. Another map (communicated by Mr. J. Sullivan) and probably in this part, copied from D'Auvergne's, gives 57 miles; and a fifth, transmitted by an Officer in Col. Fullarton's army, precisely the same as D'Auvergne's; that is $56\frac{1}{2}$.

If we adopt D'Auvergne's distance, the longitude of Tanore, deduced from Negapatam, will be	-	-	$75^{\circ} 50' 32''$
Deduced from Capt. Huddart's observations at	}	-	$75^{\circ} 51'$
Mount Dilla		-	
And from the same at Cochin	-	-	$75^{\circ} 49'$
Medium of all			$75^{\circ} 50' 10''$

* It should be a rule observed in all plans, to note how the scale was obtained; whether by actual measurement; difference of latitude; or estimation of distances: to which may be added, that the meridian line or parallel should be drawn across the whole space in the plan, to prevent errors in measuring the angles of bearing.

Scarce any discussion of the sort could be attended with a more satisfactory result: and I think it affords the strongest presumptive proofs of the truth of Capt. Howe's observations at Bombay; from which, the longitudes shewn by Capt. Huddart's time-keeper, are deduced.

With respect to my former ideas of the breadth of the peninsula, although the extent in longitude between Bombay and Madras, remains nearly as before; yet by the swelling out of the coast, on the south of Bombay, I reckoned it too narrow by about 30 G. miles in the parallel of Madras; and 27 in that of Pondicherry.

I have now concluded the discussion of the longitudes across, and round the southern part of the peninsula; and also an account of their application to the map: for a rigid adherence to difference of longitude even by observations of the above kind, between places not far removed from each other, would in some cases, distort the relative parts of the map beyond probability; and therefore, it was necessary, in some measure, to accommodate the differences, when the existing authorities appeared to carry more weight than the observations: which, as we have observed before, are subject to error, even in the application: and they are no less so, from a casual variation in the rate of the time-keeper. A series of observations, such as we have been considering, must in a general view, be regarded as decisive; but it would be hazarding too much to adopt each particular longitude, when it was contrary to every other authority. Much less can any absolute dependance be placed on lines of bearing and distance taken from maps, whose history and construction is not before us. And where more authorities than one may occur, and those not agreeing; in such cases, it must be left for the judgment to determine, which appears the most probable. Now, although there are strong presumptive proofs of the general truth of the relative positions of the principal points between Cuddalore and Anjenga, yet they do not rest on the same solid foundations, as the positions in the north part of the peninsula: and there-

fore, Cape Comorin is placed more with relation to Anjenga, than to the eastern coast. Again, the respective differences of longitude between Anjenga, Porca, and Cochin, do not well accord with other authorities; and therefore as these differences of longitude are very small, I thought the Dutch MS. map, might be better authority for them, than the differences shewn by the time-keeper. Another particular is to be noted, concerning the longitudes on the south of the parallels of Cuddalore and Mahé: (viz.) that these will be found somewhat different in the map from the above account; for when the map was constructed, I was not in possession of some papers which throw an additional light on the subject: but these differences are very trifling. Some few errors also crept into the construction; so that upon the whole, this account contains rather what the map ought to be, than what it is: though, possibly, the errors I am pointing out may be so small, that they would have escaped the notice of all but professed geographers.

Tanore and Cochin are both placed 3' to the eastward of the assigned longitude (page 23); and Negapatam 1' to the westward of what is given in page 14; by which double error the peninsula is made to be 4' narrower than was intended, in that parallel. I was ignorant at that time, that there was a plan of Humberstone's march, which had the author's name to it; and therefore had taken the medium of all the others. We will now resume the subject of the construction.

The latitude of Calicut I have taken at 11° 18'. This city is remarkable for being the first Indian port visited by European shipping: that is, by the Portuguese, who landed there under Vasco de Gama in 1498. It was then the most flourishing place on the Malabar coast, the Zamorin or Emperor making it the capital of a very extensive state. It appears to have fallen in its consequence soon after; the new power of the Portuguese occasioning a revolution throughout the maritime parts of the peninsula.

The form of the coast between Calicut and Mahé, is taken from a sketch of Major Abingdon's. Chitwa is said to be in lat. 10° 38',

by Capt. Drummond; but I cannot reconcile its situation to that parallel; as it cannot well be so near to Paniany. I have placed it in $10^{\circ} 33' 15''$.

Mangalore is the next place to Mount Dilla, in Capt. Huddart's table, and its longitude given is $74^{\circ} 44'$; lat. $12^{\circ} 50'$. For about $5\frac{1}{2}$ leagues to the N W of Mount Dilla, the form of the coast is taken from a French map in Mr. Dalrymple's collection; the rest of the coast, to Mangalore, and from thence to Coondapour, (or Baselore) in lat. $13^{\circ} 36'$, is little known as to particulars. A large river named Cangerecora, whose course is from the north-east, falls in about 4 miles to the north of Mount Dilla; previous to which, its course is parallel with the sea-coast for about 11 miles, being separated only by a spit of sand. The forts of Nelisuram, Ramdilly, and Matteloy are situated on this river, which is joined by several other rivers, or streams, that descend from the Gaut Mountains; which, in this part, approach within 22 miles of the coast. I cannot help considering this Nelisuram, which is situated about 12 miles up the river, as the place meant by Nelcynda and Melcynda, by Pliny and Ptolemy; a place visited by the Egyptian and Roman ships.

We have been lately brought acquainted with the particulars of the coast, between Barcelore and Meerzaw (or Merjee) by means of a map drawn by Lieut. Reynolds, during the war which terminated so unfortunately for the British arms in 1783, in the Bednore country; to which this part of the coast is opposite. This map is drawn in a most masterly style, and contains near 60 G. miles of the coast; and extends inland to the foot of the Gauts, which here, approach in some places within 6 miles of the sea, and are never more than 20 from it. It includes the positions of Bednore and Bilghey within the Gauts; and also, Onore, Batcole, and Coomtah on the coast. We are furnished with the means of joining this portion of geography to the rest, by having the longitude of Pigeon Island determined by Capt. Huddart; and by the position of it in respect

respect of Fortified Island, near Onore. Pigeon island is very small, and lies about 8 G. miles from the coast, and 15 from Onore*, and is in lat. $14^{\circ} 1'$. Its longitude is $74^{\circ} 6' 30''$.

From Meerzaw, to Cape Ramas in the neighbourhood of Goa, we are but ill informed concerning the particulars of the coast. Between these, are situated the port of Carwar, and the islands of Angedive, both of them better known to the English in the early period of their India trade, and before they were in possession of Bombay. Capt. Huddart fixed the longitude of Oister Rock in the mouth of Carwar Bay, and also that of the Aguada Point and castle, on the north side of the entrance of Goa Bay, or road. This he makes to be in $72^{\circ} 34' 30''$; and it is worthy of observation, that the city of Goa, which is $11'' 15''$ more to the eastward, and consequently in $72^{\circ} 45' 45''$ by the same account, was placed in the same position within a fraction of a minute, by the observation in the *Con. de Temps*; and which, for want of being better informed, I formerly disregarded. The positions of Cape Ramas, Angedive, and Carwar Points, are corrected in respect of Aguada, by a set of observations and bearings of the late Capt. Howe, whose attention to marine science, was equal to his gallantry, and knowledge of the practical part of his profession. I have had occasion repeatedly to acknowledge the aids I have been furnished with, by means of his collection of Observations and Remarks, in the possession of Mr. Dalrymple.

The figure of the island of Goa, and its environs, to the foot of the Gauts, is taken from a Portuguese MS. map of Mr. Dalrymple's. The latitude of Goa, and of the Aguada Castle, is $15^{\circ} 28' 20''$.

Goa, the capital of the Portuguese settlements in India, and the seat of a Viceroy, is a very considerable city. It was first taken possession of by Albuquerque in 1510, and from a Prince of Saracen extraction, according to Jarric.

* When Fortified Island bore $E \frac{1}{2} N$ distant $2 \frac{1}{2}$ miles, Pigeon Island bore $S \frac{1}{2} W$, and Hog Island $S S E$. Hog Island bears from Pigeon Island $E \frac{1}{2} S$ distant about 7 miles.

The coast between Goa and Bombay, near 220 G. miles, is little known to us in detail, nor indeed was the general bearing of it known, until Capt. Huddart furnished us with his series of longitudes. By his account it appears, that this coast, although in the neighbourhood of our principal marine station and arsenal in India, was described in the charts, with an error of very near a whole point of the compass, in bearing. Indeed the whole western coast of India has far too great an obliquity from the north towards the west, in all the former charts; my own not excepted. Mr. Dalrymple accounted very rationally for it, by bringing to our recollection the great quantity of westerly variation of the needle, that prevailed here, during the time of our first voyagers; and which is now reduced to less than 2 degrees. It is well known, that it was a long time before the true north was discriminated in charts; and the original idea of the direction of this coast, was transmitted down to our days.

Perhaps there are few coasts so much broken into small bays and harbours, and that at the same time have so straight a general outline. This multitude of small ports, uninterrupted view along shore, and elevated coast, favourable to distant vision, have fitted this coast for the seat of piracy; and the alternate land and sea breezes that prevail during a great part of the year, oblige vessels to navigate very near the shore. No wonder then, that Pliny should notice them in his time as committing depredations on the Roman East India trade; and although a temporary check has been given them, in the destruction of Angria's fleets, &c: yet we may expect that they will continue the practice while commerce lasts. They are protected by the shallowness of their ports, and the strength of the country within. As pirates, they have greater natural advantages than those of Barbary, who being compelled to roam far from their coasts, have expensive outlets; here the prizes come to their own doors; and the cruisers may lie secure in port, until the prey is discovered.

The Vingorla Rocks in lat. $15^{\circ} 52' 30''$ Capt. Huddart took the longitude of, next to Goa, and made it $73^{\circ} 16' 30''$. These rocks lie about 6 or 7 miles off shore, of which we know but few particulars, farther than that it is possessed by a piratical tribe named Malwaans. The principal ports hereabouts are Melundy or Sunderdoo, a fortified island about 10 miles to the N E by N of Vingorla Rocks, and reduced by Commodore James in 1765: also Rairee, Vingorla, and Newtya: which last I cannot help thinking, is the *Nitrias* of Pliny, near which the pirates cruised for the Roman ships.

A Dutch MS. chart assisted me in drawing the coast between Melundy and Antigherrya, an extent of about 70 G. miles. This chart was procured by Sir Joseph Banks for Mr. Dalrymple: and the tract comprised within it, contains the ports of Dewgur, Tamanah, Rajapour, Rampa, Antigherrya, and also Gheriah, late the capital and principal port of Angria. This place was found by Capt. Huddart to be in lon. $73^{\circ} 8'$; and its latitude is $16^{\circ} 37'$. Between Antigherrya and Bombay, are the ports and islands of Zivagee, Dabul, Severndroog, Fort Victoria (or Bancoote), Sufferdam, Danda-Rajapour, Choult and Coolabba. At Victoria, the longitude was found to be $72^{\circ} 54'$: latitude $17^{\circ} 59'$. The latitudes alone of several of these places, helped me to settle their positions, as the coast is nearly meridional; but I hardly expect to be free from mistakes, in fixing such a number of places, within so confined a space, and with so few aids.

Bombay, the principal port and settlement of the English in this quarter, is situated in lat. $18^{\circ} 58'$, longitude by Mr. Howe's observation $17^{\circ} 38'$. I have placed it in $17^{\circ} 40'$, or 2 minutes farther to the east, which was occasioned originally by a mistake, and which would have cost too much time to rectify, had I attempted it. Bombay is a small island, scarcely more than 7 miles in length, and very narrow, containing a very strong and capacious fortress, a large city, and a dock-yard, and marine arsenal. It was ceded to the

English

English in 1662, by the Portuguese, as part of the dower of the Queen of Charles II. On the N.E. it is separated by a narrow strait, from Salfette, a fine island of about 15 miles square, and an acquisition from the Marattas in 1773. Bombay, Salfette, and the neighbouring shores of the Continent, form a large sound, in which are several other islands, particularly Caranjah and Elephanta, the latter famous for its subterraneous temple, and both of them acquisitions from the Marattas.

Salfette also has its subterraneous temples, cut out of the live rock: all of which appear to be the monuments of a superstition anterior to that of the Hindoos*.

Basseen, a city and fortress of note, is situated on the point of the Continent opposite to the north end of Salfette. This place fell into the hands of the English, after a smart siege in 1780, but was restored to the Marattas, together with all the other conquests made on that side of India, at the peace of 1783, Salfette and the small islands excepted. Basseen is situated in lat. $19^{\circ} 19'$, and under the same meridian as Bombay, as appears by the maps of that island and Salfette.

From Basseen to Surat, the surveyor with General Goddard's army, drew a measured line (as I am informed) and the result gave 9,5 G. miles of easting, or $10'$ of longitude, for the difference between Basseen and Surat; by which the latter should be in lon. $72^{\circ} 50'$. The difference of latitude N from Basseen, was found to be $52'$, which added to $19^{\circ} 19'$, gives $21^{\circ} 11'$ for that of Surat. It is placed in $21^{\circ} 10' 30''$.

It is a great misfortune to geography that no one observation of longitude should have been taken, on the west of Bombay; by which default, we are precluded from correcting an extent of 7 degrees of longitude, along a coast that winds in such a variety of

* At Elora near Dowlatabad, more than 200 miles to the east of Salfette, are other temples of the same kind. For an account of these, see Thevenot: and for the former, Anquetil du Perron.

directions, and whose geography is composed of materials of so miscellaneous a kind, that it can hardly be expected we should steer clear of error in the construction of it. The position of Surat is indeed checked by the measured line of General Goddard's march from Burhanpour; where Mr. Smith had an observation of the longitude. And we have also a measured line professedly taken with bearings on shore, as far as Amedabad. But compasses often differ; and the variation is as often neglected.

Mr. Smith's longitude of Burhanpour is $76^{\circ} 22'$, (but I have taken it in my map at $76^{\circ} 19'$, the reason of which I shall shew in its proper place) and it is taken notice of now, only with a view to shew how far Surat, as it is placed here, agrees with the observation made on the east of it.

By the survey of Goddard's march from Burhanpour to Surat the difference of longitude between the two places appears to be $3^{\circ} 30' 45''$, which taken from $76^{\circ} 22'$, leaves $72^{\circ} 51' 15''$ for the longitude of Surat. I have before observed, that its longitude deduced from Bombay is $72^{\circ} 50'$; but having taken Burhanpour at $76^{\circ} 19'$, Surat will be in $72^{\circ} 48' 15''$, and that is the longitude I have adopted for it; altering at the same time Goddard's difference of longitude from Bassen, to $8' 15''$, instead of $10'$. And as Mr. Howe's longitude of Bombay was altered from $72^{\circ} 38'$ to $72^{\circ} 40'$, it appears that Surat stands as it would do by Mr. Howe's original observation, and with Goddard's original difference, of longitude.

The materials under different authorities, for the form of the coast between Bassen and Surat, do by no means accord together; nor have I the means of determining which to prefer. From Bassen to Arnaul, a fortified island, commanding the entrance of the Angahsyah, or Mandavee river, I take from General Goddard's march, the only authority I can find. From Arnaul to Nonsary or Nossary, a few miles short of Surat river, there is a chart by Lieut. Ringrose; and also a chart from St. John's Point, to Surat river by Lieut. Skynner: by which means, we have about 50 miles

of the space contained in Skynner's chart, included also in Ringrose's; and an opportunity is given of comparing their bearings and distances, as well as Goddard's, which includes nearly the same space. Here, to our utter astonishment, we find two charts, professedly taken by authority, differ 11 degrees in bearing in an extent of 60 miles! for so much more eastwardly from the north, does Mr. Skynner make the bearing of Surat from Omergong, than Goddard's map does. As to the comparison between Ringrose and Skynner's charts, from St. John's Point to Nossary, Ringrose makes the bearing N 2° W, and Skynner N 10° E. Goddard's route coming close to the sea in the neighbourhood of St. John's, shews, if we may rely on his map, that the truth lay between Ringrose and Skynner; but that Ringrose came the nearest to it.

Having taken Goddard's line for the general bearing, I have adapted the other charts to it, in the best manner I could; preserving all their particulars, in which they do not differ so much as in generals. Such excellent surveying marks as Tarrapour and Valentine's Peaks, and Poneira Castle, &c. offer, might easily afford *data* for a series of triangles; and of course, for a general survey of this coast, in skilful hands: and take away from us the reproach of remaining ignorant of the true courses between two of our principal factories, Bombay and Surat. St. John's Point does not appear to project far from the general line of the coast, either by Goddard's or Ringrose's accounts, though described in that manner in all former charts. The shallowness of the water near it, has probably kept navigators at too great a distance to be informed of the truth. I apprehend that the hill called Segwah, in General Goddard's route, is what is called Valentine's Peak by navigators.

From Surat to Amedabad, through the city of Broach, there is a route of General Goddard's professed to be measured, and taken mathematically. We had previously maps or surveys of the country between Surat, and the river Myhie, extending inland to Brodera, Dubhoi, and Zinnore, on the Nerbudda; but none of them went
beyond

beyond the Myhie. The following is the comparison between the bearings and distances of the different maps as far as they go.

From Surat to Brodera, by Goddard	N 18° 55' E	69,95 G. miles.
----- Turner	N 20 5 E	68, 4
----- Himming	N 18 28 E	68,85
Medium	N 19 24 E	69,07

The differences here, are not great, considering how much, compasses and measures often differ among themselves. The medium of the 3 accounts differs so little, in any respect, from Goddard's, that we need not hesitate to adopt the rest of his line to Amedabad, which is something more than 50 miles to the north-westward of Brodera. The most remarkable difference in this quarter, is between Mr. Skynner's and others bearings and distances between Surat and Cambay.

Mr. Skynner's is	-	N 22° W	83,2 G. miles.
Mr. Taylor's	-	N 9° 5' W	67,7
Mr. Himming's	-	N 10 30 W	68,3

And it is remarkable that the deviation here, is from the north, towards the west; on the former occasion, it was from the south, towards the west. As Taylor's, Himming's, and Goddard's, agree so nearly between Surat and Brodera, one cannot help giving the preference to their lines; or at least to the medium of both, between Surat and Cambay; which is placed in lat. 22° 16' 45", lon. 72° 32' 45".

Having altered the bearing of the east side of the gulf of Cambay, it became necessary, in order to preserve a proper width to the gulf, to give the west side a direction more oblique to the meridian, than appears in the original. At the same time, as it appeared but reasonable that Groapnaught Point, should preserve the parallel of lati-

tude assigned it, in the original; the length of the western coast, must necessarily be augmented, which it is, by 3 miles. The width of the gulf, in the original, from Swalley to Groapnaught, is $52\frac{1}{2}$ G. miles. I have allowed it $48\frac{1}{2}$ only.

It may be observed however that both D'Anville and D'Apres give even a more oblique direction to this coast than I have done; at the same time, that they give nearly the same direction to the eastern coast, that Mr. Skynner does; and by this means, bring the head of the gulf, almost to a point. D'Anville places Cambay $33'$ of longitude west of Bombay, and D'Apres $25'$. I have allowed only $7' 15''$. And Groapnaught Point, placed as above described, is in lon. $71^{\circ} 42' 30''$; which is $4' 30''$ more eastwardly, than it would have been, had Mr. Skynner been followed throughout. It is unpleasant to reflect that one is left in a state of uncertainty on a matter of considerable importance; for such, the true bearing of the opposite coasts of a deep and dangerous gulf, must be regarded; and here we find a whole point in dispute.

From Groapnaught Point, to Diu Head, I have followed Mr. Skynner's original bearing and distance; which gives $1^{\circ} 50' 15''$ difference of longitude west; placing the westmost part of the Point, in lon. $69^{\circ} 52' 15''$. The latitude is $20^{\circ} 43'$.

From Diu Point to Cape Monze, beyond the mouth of the Indus, or Sindé river, the bearing and distance is taken from a medium of three charts furnished by Mr. Dalrymple, and appears to be $N 41^{\circ} 20' W$; and the distance, corrected by the latitudes of Point Diu, and Cape Monze, the latter taken at $25^{\circ} 5'$, gives $3^{\circ} 58'$ difference of longitude; placing Cape Monze in $65^{\circ} 54'$. M. D'Anville places this Cape near a degree more to the eastward; and makes the longitude between it and Bombay $4^{\circ} 57'$, instead of $6^{\circ} 44'$, as given in my map: and this makes a great alteration in the figure of the coast between Surat and the mouth of the Sindé, or Indus: the peninsula of Guzerat being much larger than was formerly supposed,
the

the gulf of Sindé (or Cutch) much smaller; and the Delta of the Indus projecting into the sea, instead of receding from it.

The several charts of the western coast of the peninsula of Guzerat, and of the coast of Sindé, differ in a variety of particulars; and would make a minute discussion of them, too tedious, even for this Memoir; and besides, nothing appears in either of them, to claim a preference. In the general bearing above given, the three charts differed no more, among themselves, than $2^{\circ} 15'$, in bearing; but the charts of the mouth of the Sindé and the gulph of Cutch, differed so much that Mr. Dalrymple thought proper to publish them all separately, in order that every person might be enabled to judge for himself. On collating the names of the different mouths of the Sindé, one finds great contradictions; and it is very difficult to identify them in the several charts. The flatness and want of variety in the appearance of the coast, added to the sand-banks which keep navigators at a distance, and prevent their discriminating any minute objects that may occur, occasion these mistakes. The fombs alone appear to be the marks for the coast. The latitude of Ritchel I have taken at $24^{\circ} 21'$; and that of Caranchy or Crotchey, at 25° .

All the particulars of the western coast of Guzerat, and the mouth of the Sindé, are copied from the abovementioned MS. and printed charts of Mr. Dalrymple's: and consequently the whole coast from St. John's Point to Cape Monze, is described from new materials.

I now return to Balasore.

From Balasore, eastward to Chittigong, the distance has been determined by the inland survey; and the figure of the coasts and inlets by Capt. Ritchie's sea survey. The difference of longitude between the towns of Balasore and Chittigong (or Islamabad) is $4^{\circ} 53'$ east; and, it is worthy of remark, that the distance by Capt. Ritchie's marine survey, agreed with the measurement on shore, to within two miles and a half.

The

The charts as late as the year 1752, represented the difference of longitude between these two places, to be only $3^{\circ} 48'$; that is, $1^{\circ} 5'$ less than the truth. And this diminution of the longitude, while the difference of latitude continued right, gave the sea coast between the mouths of the Ganges, a direction of two points, or $22\frac{1}{2}$ degrees more northwardly than the truth; which doubtless occasioned the loss of many ships, who trusted to the information.

From Islamabad, in longitude $91^{\circ} 55'$, latitude $22^{\circ} 20'$, the coasts of Aracan and Pegu take a S S E course to Cape Negrais, the extreme point of Pegu to the south-west; the latitude of which is under 16 degrees, and distance from Islamabad about 420 G. miles. The outline of this whole coast has been traced by Capt. Ritchie, under the same direction, and in the same manner, as the coasts on the west side of the bay. He made the difference of longitude $2^{\circ} 32'$ east from Islamabad; placing Cape Negrais in $94^{\circ} 27'$ *. Mr. Dalrymple, who has taken uncommon pains to ascertain the bearing of this coast, from journals, and a variety of sketches and remarks, makes the difference of longitude $2^{\circ} 34'$, or only $2'$ different from Mr. Ritchie. The result of this laborious enquiry, corrected by a nicely discriminating judgment, corroborates, in the strongest manner, Capt. Ritchie's calculation; and affords a degree of satisfaction next to that of an actual observation.

I mean to have it understood that Capt. Ritchie's chart of this coast, is to be taken only as a general outline, being imperfect as a coasting chart. Many particulars on this coast are taken from Mr. Dalrymple's collection, both printed and MS.: particularly, the river of Aracan, the east side of Cheduba, and the passage between it and the main; and a variety of particulars on the coast of Ava. Some of the names of places were also misconceived by Capt. Ritchie.

* The longitude of this Cape was reckoned by M. D'Anville only $93^{\circ} 16''$: so that the New Map increases the distance between the mouth of the Sinde (or Indus) and Cape Negrais, 2 degrees and 7 minutes of longitude.

Capt. Ritchie's latitude of Cape Negrais, or Pagoda Point, is more southwardly than it is commonly taken at, by 10 minutes; which I cannot account for, as his observations of latitude are generally exact. I have placed this Cape (by which I mean the south extremity of the coast of Ava) in $15^{\circ} 57'$, by the medium of 6 different accounts, varying from $15^{\circ} 51'$, to $16^{\circ} 4'$. Capt. Ritchie's was $15^{\circ} 52' 30''$.

At this point, my materials for ascertaining the intermediate longitudes of places on the eastern side of the bay, fail me: and I have been under the necessity, in a great measure, of substituting judgment for fact, between Cape Negrais and the next place of observation, Mergui: which place, as it is given by M. D'Apres in his new *Neptune Orientale*, is in $98^{\circ} 20'$ east longitude, or $3^{\circ} 53'$ east from Cape Negrais. M. D'Anville allows 4 degrees; which comes within 7 minutes of mine; but although we agree nearly in the aggregate, we differ widely in point of particulars.

The MS. charts that I have consulted, make the difference of longitude in question, $4^{\circ} 30'$ on a medium; which is $37'$ more than I make it. And M. D'Apres makes it $4^{\circ} 19'$.

The disagreement in particulars between M. D'Anville's account and mine, arises in the part between Cape Negrais, and the coast of Martaban. It happens that this coast lies in a direction so far from meridional, and at the same time the tides and currents of the several mouths of the Ava river, do so disturb and falsify the ship's reckonings, that the true distance can never be ascertained that way, in the ordinary course of navigation. Plans of the Persian and Syrian rivers, as high up as the cities of those names respectively, have been already published in Mr. Dalrymple's collection; and, fortunately, I have been able to obtain tracings of the continuations of those rivers (which are the two extreme branches of the Ava river) to the place where they separate from the main river, at about 150 G. miles from the sea. The bearings of the two branches intersect each other at an angle of about 60 degrees; and, there-

fore, by the help of the latitude, may be used, in correcting the length of the coast between Negrais and Syrian. The *Perfaim*, or *Negrais* branch, was traced by that accurate observer, Capt. George Baker, in his way to Ava in 1755. I have not been able to learn by whom the Syrian branch was traced; but by the orthography of the words in the map, the author appears to have been a Dutchman.

The result of these bearings, corrected by the latitude, as set forth in the Syrian map, gives difference of longitude from Negrais Point, to the mouth of the Syrian river, $2^{\circ} 21'$ east; which is about 10' less than M. D'Apres makes it, and 21' less than M. D'Anville. Some of the MS. charts make the difference still more.

The mouths of the Ava river, which form an assemblage of low islands, like those of the Ganges, are described from several MS. charts of Mr. Dalrymple's, collated with M. D'Apres' new chart.

From the mouth of the Syrian river to the coast of Martaban, in latitude 15° I have copied from the new chart of M. D'Apres, published a very short time before his death. The figure of the coast is quite new.

Between the aforesaid latitude and Tavai Point, our charts are very imperfect; but generally agree in giving the coast a direction of south, a very little eastwardly.

From Tavai Point to Mergui, the coast is taken from a MS. chart compiled by the late Mr. Howe.

Mergui is placed, as I have said before, according to M. D'Apres' observation: that is, in longitude $98^{\circ} 20'$; latitude $12^{\circ} 9'$.

All the remainder of the coast, to Junkseilon; and the whole Mergui Archipelago, is from M. D'Apres.

I NEXT proceed to the chain of islands that extend from Cape Negrais to Sumatra; and are known by the names of the Preparis, Cocos, Andaman, and Nicobar islands.

Capt. Ritchie, after leaving Negrais, proceeded agreeably to his instructions, to describe the situation and extent of the islands that compose this chain.

None of them are more than 84 G. miles distant from each other; so that he needed never to be more than 42 miles from land: and that but once during the voyage; that is to say, between the Little Andaman and the Nicobar islands. In other places, the distance between the lands is commonly much less: so that the meridional direction of the course, and other circumstances, render this line of much use in correcting the longitudes, not only of the islands themselves, but of Sumatra also; and, had it been continued as was intended, to Acheen, would have answered the purpose completely.

Passing the Preparis and Cocos islands, Capt. Ritchie proceeded to Narcondam, to fix its position: then back again to Cocos; down the east side of the Great Andaman, (which he found to be almost a degree of latitude longer than was before supposed) then up the west side of it, almost to the latitude of 12° : when finding the attempt to circumnavigate the island, might prove fatal to the remainder of his work, he proceeded southward; describing the extent, figure and positions of the Little Andaman and the Nicobars, till he came to the south point of the great (or southmost) Nicobar. Here the wind suddenly changed to the south, and prevented him from determining the respective positions of the southern Nicobar and Acheen: which is the more mortifying, as one day's fair wind would have enabled him to accomplish it.

The result of this line of bearing is, that the south end of the Great Nicobar, is in longitude $94^{\circ} 23' 30''$; that is, only $3' 30''$ west from Capo Negrais.

The position of Acheen Head, or King's Point (the N W point of Sumatra) has hitherto been deduced from its bearing and distance from Malacca, the nearest place of observation; and its longitude according to this deduction, is $95^{\circ} 30'$ according to M. D'Apres. Now the bearing of Acheen from Malacca, being in a direction of more than 60 degrees from the meridian, and the distance 450 G. miles; little reliance could be placed on the result of it, if it did not happen that the respective positions of the southern Nicobar, and of Poulou Ronde (an island near Acheen) the one deduced from Negrais Point, and the other from Malacca, agreed nearly with their reputed bearing and distance from each other. For, of two MS. charts which I have examined, the one makes $1^{\circ} 1'$, the other $1^{\circ} 2'$ difference of longitude between them; and these being laid down apparently without any attempt to support a system, may be supposed to be agreeable to experiment. The bearings and distances in these MS. charts are

In one S 56° E — 72 G. miles.

And in the other S 56° E — 75

And according to the deduced longitudes abovementioned, the bearing and distance is S 56° E — 76

So that there cannot be any great error in the longitude of Acheen, as laid down in M. D'Apres', and in my map, if this sort of coincidence can be reckoned a proof of accuracy: a difference of a few miles, in the distance of 8 degrees, being much less than could be expected in such a series of deductions. M. D'Apres makes the bearing and distance between the south Nicobar and Poulou Ronde S $57^{\circ} 30'$ E 97 G. miles; or difference of longitude $1^{\circ} 22'$, that is, $22'$ more than the MS. charts. It must be observed, that he reckons the south end of this Nicobar, 9 miles farther to the north than the truth; occasioned by his making the island so much too little in extent: for the north end is in its true latitude. Had the south point of the island been in its true latitude, the bearing of Poulou Ronde would have been more eastwardly, and the distance
only

only 93, instead of 97 : and if, on the contrary, he has enlarged his distance on the original bearing, to make it answer to the latitude, the original distance could have been only 85 miles.

I have said before that Capt. Ritchie went no higher up the west side of the Great Andaman, than about the latitude of 12° . The remainder of that coast, as well as the passage through the islands at the north end of it, is from a MS. chart lent me by Mr. Dalrymple ; and which carries with it the greatest appearance of truth, on a comparison of the south and south-west parts of the Great Andaman in this chart, with the same parts in the chart of Capt. Ritchie.

Barren Island, and the rock on the east of Duncan's Passage, are from the remarks of Capt. Justice in 1771.

ISLAND OF CEYLON.

IT happens that the ordinary tracks of British ships, to and from Ceylon, and the coast of Coromandel, are not calculated for determining the relative positions of Point Pedro and Point Calymere, the approximating points of Ceylon and the continent of India. Hence it is, that we are so ill informed, not only of their true situations with respect to each other, but also with respect to the parallel of latitude under which Point Pedro is situated.

By my observations, Point Calymere (the southern extreme of Coromandel) lies in $10^{\circ} 20'$ latitude, and by inference from Madras, in longitude $79^{\circ} 54' 30''$. M. D'Apres places it 6 minutes more northwardly ; and D'Anville 7 further south. The latitude of Point Pedro, is also variously represented by the above geographers : I have taken it at $9^{\circ} 52'$.

In M. D'Apres I find the bearing and distance from Point Calymere to Point Pedro, to be - S 37° E 41 G. miles.

In D'Anville - - S 39 E 38

In a MS. chart, no name - S 46° 30' E 40

I had an opportunity in 1764, of determining the position of Cow Island from Tondi, nery nearly: I made it 10 G. miles west of Point Calymere, and 39 east of Tondi. Between Cow Island and Point Pedro, Van Keulen reckons $41\frac{1}{2}$, and D'Apres and D'Anville, 42 miles, of easting. This will place Point Pedro $31\frac{1}{2}$ east of Point Calymere; or in longitude $80^{\circ} 27'$, and in bearing from Point Calymere E $43^{\circ} 20' S$; $42\frac{1}{2}$ G. miles distant. I have placed it in this situation accordingly; as thinking it not liable to any great objection.

The figure of the island of Ceylon is variously represented by different geographers. Van Keulen makes it too narrow, in the swelling part: that is, between Batacola and Columbo; as is pretty evident from the longitudes shewn by the time-keepers of some of the commanders of the East India ships, and others. D'Anville and D'Apres in their maps of the island, agree much better with these observations.

Between the meridians of Calitopr and the east side of Ceylon in lat. $7^{\circ} 49'$ Van Keulen reckons the difference of longitude

only - - - $1^{\circ} 46'$

M. D'Anville - - - 2 1

M. D'Apres - - - 2 8

And by the time-keepers it is 2 12

However, until a regular series of observations by time-keepers are made by the same person, all round the island, we must despair of seeing the true figure of it, unless its coasts were surveyed. The casual observations which we are in possession of, from different hands, will only assist us in fixing certain points of it; which being done, the general figure of the island must be collected in the best manner it can be done, from the charts existing.

The

The following are the observations of longitude taken on the south side of Ceylon.

Point de Galle by Capt. Huddart	-	80° 1' 30"*
----- Dundas	-	80 7
----- West	-	80 17 †

The medium of these 3 accounts is 80 8 30

Dundrahead by Mr. Topping's observation (worked to Pondicherry in lon. 80°) is in lon. 80° 39' : I reckon Point de Galle 28' west from Dundrahead, therefore it should be by this account in 80° 11'.

Mr. Topping observed the longitude of the Great Bassas also; so did Capt. Dundas: but as we are not well informed concerning the exact difference of meridians between them, and they being at least 1° 22' distant, nothing in these observations will apply to Point de Galle.

There is certainly too much discordance between the three longitudes of Point de Galle given above; the medium of which is 80° 8' 30". As Anjenga and Cape Comorin were placed 3' farther to the eastward, than Capt. Huddart's observation warranted, in order to accommodate the differences between the two calculations, Point de Galle should be reckoned in 80° 11' 30". Mr. Dalrymple's time-keeper gave the difference of longitude between Anjenga and Point de Galle 3° 29' 30", which added to 76° 40' (see page 19) gives 80° 9' 30".

If we consider the respective positions of Point Pedro and Point de Galle by the different geographers, we shall have the following result:

* Deduced from Bombay, which is reckoned in 72° 40'.

† Capt. West reckoned from Sadras, which I place in 80° 24'. He reckoned it 80° 19'; and of course, Point de Galle in 80° 22'.

Van Keulen places Point de Galle west

	of Point Pedro	-	13' 45"
M. D'Apres	-	-	10
M. D'Anville	-	-	3

Medium of the three 8' 55" or 9' "

And the longitude of Point Pedro being taken at $80^{\circ} 27'$, Point de Galle by this rule will be in $80^{\circ} 18'$.

On an occasion like this, where we are not likely to come exactly at the truth, since no one can pretend to say, whether the longitude of Point de Galle be $80^{\circ} 1' 30''$ or $80^{\circ} 18'$; I thought it better to ensure a certain good, at the hazard of a small mistake, than to sacrifice that advantage, by adhering to a result, which in itself was problematical. In other words, I judged it better to preserve the general form of the island, and consequently the respective positions of the north and south points of it, as given by D'Apres; and which appear to me to agree best with the result of the observations of longitude, taken on different sides of it; than to change those relative positions, which must have been done, had Capt. Huddart's observation at Point de Galle been adopted. I have therefore placed Point de Galle 10' west of Point Pedro (according to D'Apres); that is, in lon. $80^{\circ} 17'$. Had I adhered to the observations, in respect of Cape Comorin, it would have been $80^{\circ} 11' 30''$. The medium of all the observations and deductions, is about $80^{\circ} 14' 30''$. The observations differ among themselves $14' 30''$. The latitude of this Point is 6 degrees; and of Dundrahead, the southmost point of the whole island, $5^{\circ} 51'$.

The observations at Dundrahead, were, by Mr. Topping $80^{\circ} 39'$, and by Capt. Huddart $80^{\circ} 23'$. The Great Bassas, by Mr. Topping $81^{\circ} 41'$; by Capt. Dundas $81^{\circ} 30'$. The variation in these longitudes, shew that a series of them by the same person, and the same time-keeper, is by much the most desirable.

The

The longitudes on the east side of Ceylon, by 3 different gentlemen; (viz.) Capt. Cumming, Capt. West, and Mr. Topping, do not disagree so much as those on the south side of the island. They are these:

				By construction.
In lat. $7^{\circ} 40'$	Mr. Topping's longitude was	$82^{\circ} 2'$		$81^{\circ} 58'$
6 33	Capt. West's	-	$81^{\circ} 55'$	82
6 53	Capt. Cumming's	-	82	$82^{\circ} 2'$
7 31	Ditto	-	$82^{\circ} 1'$	$82^{\circ} 1'$

Together with M. D'Apres' dimensions of the island, (in the southern parts, particularly) I have adopted his detail of the coast from Columbo to Vendelos Bay. From Vendelos Bay to Point Pedro, the coast in Van Keulen appears to be too nearly meridional, and his latitudes too much southwardly. Again, on the west side, from Columbo to Manar, I followed D'Apres' bearing, which is more north-eastwardly than Van Keulen's. Indeed it could not be otherwise, than that both the east and west coasts must have a greater degree of obliquity from the meridian, than Van Keulen represents: because he allows too little breadth to the south part of the island. In short, the general form of the island is D'Apres: but the particulars are collated with Van Keulen's and D'Anville's maps.

The distance from Mentole Point, on Ceylon, to Point Ramen on the continent I take to be less by $11\frac{1}{2}$ G. miles, than Major Stevens supposed it to be, in his chart; nor can it be otherwise, to reconcile it to my position of Cow Island.

The Maldive and Laccadive Islands are copied from M. D'Apres; save that the position of the northmost Maldive Island (called by the French *the head of the Islands*) is placed according to Mr. Topping's observations of latitude and longitude in 1785. He made the latitude of it $7^{\circ} 5'$, and the lon. $73^{\circ} 4'$; and when opposite to it on the north, he counted 32 islands; the furthest bearing S E by E.

SECTION II.

The surveyed Tract on the side of BENGAL, or that occupied by the Course of the GANGES, and its principal Branches, as far west as the City of AGRA.

THIS extensive tract, which comprizes the soubahs of Bengal, Bahar, Allahabad, and Oude; a large portion of Agra and Delhi, and a small part of Orissa, is bounded on the east, by Affam, and the dominions of Ava; on the south-east, by the gulf, or bay of Bengal; on the south-west by an imaginary line drawn from the port of Balasore in Orissa, to the city of Narwah; on the west by another such line drawn from Narwah, through the city of Agra to Hurdwar, the place where the Ganges first enters the plains of Hindoostan; and on the north, by the first ridge of mountains towards Bootan. It is in length from the city of Agra, to the eastern confines of Bengal, upwards of 900 British miles; and in breadth from 360 to 240.

With respect to the particulars of this survey, which was executed between the years 1763 and 1777, it is unnecessary to say more than that the distances were measured, and that they accorded with the observations of latitude and longitude: with the former minutely, and with the latter so nearly, that it was unnecessary to make any correction.

Agra, by Claud Boudier's observation, is in	-	78° 29'
Calcutta, by the medium of four observations		88 28

Difference of longitude by observation	-	9 59
--	---	------

By survey	-	9 58
-----------	---	------

And Calpy on the river Jumnah, stands in the survey in lon. 80° 4'

And by the Revd. Mr. Smith's observations

80 0
Agra,

Agra, then, appears to be the most western point determined by the survey; and serves as a common point of union between the surveys on the east, and the routes furnished by various MS. maps, and itineraries, on the north, south, and west. By means of the survey also, a number of points are ascertained, which serve to set off cursory surveys of roads both to the west and south: such as Hurdwar and Ramgaut, on the north of Agra: and Gohud, Calpy, Chatterpou, Rewan, Burwa, and Balafore on the south.

As this tract contains the site of the famous city of Palibothra (or Palimbothra) as well as those of Canoge (or Kinnoge) and Gour, it may not be amiss to take some notice of them: as also of some of lesser note, such as Punduah, Tanda, Satgong, (or Satagong) and Sonergong: all of which, (Palibothra excepted) are mentioned either in the Ayin Acbaree: or in Ferishta.

Pliny is the only one among the ancients (as far as I know) that assigns a particular spot for the site of Palibothra, the rest only speaking generally of its situation, and as it appears by a discussion of particulars, contradicting one another. All are agreed that it was situated on the right bank of the Ganges (that is, *intra Gangem*) and at the confluence of a large river with it. This river was named *Erranoboas* according to Arrian (who had his intelligence from Megasthenes's journal) and was of the third degree of magnitude among the Indian rivers; and inferior to none but the Ganges and Indus. I cannot apply the name *Erranoboas* to any particular river. Pliny certainly says that the *Jomanes* (Jumnah) entered the Ganges by Palibothra, between *Metbora* and *Chisobura* *; but it is equally true, that in another place, he mentions the conflux of the Ganges and Jomanes, and in the very next article says that Palibothra is situated 425 miles below that very point of conflux. Strabo does not give the name of the adjunct river.

Palibothra, was the capital of the Prasii, by the account of Megasthenes, who resided there; and was of very great dimensions,

* The different readings are *Caryobura*, and *Cyrisobura*.

being 80 stadia in length and 15 broad. If we reckon these measures to produce 10 miles in length, and near two in width*, which for a European city, compactly built, would be reckoned enormous; yet it does not exceed the dimensions of some of the capital cities of the Indian subahs or vice-royalties. The ruins of Gour in Bengal, are more extensive; that of ancient Delhi much more so. The plans of the Indian cities contain a vast proportion of gardens and reservoirs of water; and the houses of the common people consist of one floor only: of course, fewer people can be accommodated in the same compass of ground, as in an European city; and this may account for the enormous dimensions of Asiatic cities.

As Pliny's Indian itinerary (in Book VI.) enumerates the particulars of the whole distance between the Indus and the mouth of the Ganges; and particularizes the site of Palibothra; it could hardly be doubted that some very large city stood in the position assigned to it: but I had always a doubt of its being the capital of the Prasii† visited by Megasthenes. Late enquiries made on the spot, have, however, brought out this very interesting discovery, that a very large city, which anciently stood on or very near the site of Patna, was named Patelpoot-her (or Pataliputra, according to Sir William Jones) and that the river Soane, whose confluence with the Ganges is now at Moneah, 22 miles above Patna, once joined it under the walls of Patelpoot-her. This name agrees so nearly with Palibothra, and the intelligence altogether furnishes such positive kind of proof; that my former conjectures respecting Canoge, must all fall to the ground; notwithstanding that Canoge was unquestionably the capital of a large kingdom from very early times.

I consider the above information as too clear and positive to require any proofs from ancient authors; and therefore the following

* The olympic stade can hardly be taken at a furlong, but probably at 200 yards. Then the dimensions will be about 9 B. miles in length, and 1½ in width.

† The empire of the Prasii seems to have included most of the tract through which the Ganges flows, after it enters the plains of Hindoostan.

examination of Pliny's itinerary, is intended rather to shew his great accuracy in geographical subjects, than as a proof of the above position; although it may serve that purpose also. To use the words of a celebrated author, "Pliny's natural history is one of the greatest monuments of universal knowledge, and unwearied application, now extant in the world*." That part of the itinerary, applicable to my purpose, is as follows :

From Taxila or Tapila, on the Indus (probably near the site of *Attock*) † to the river Hydaspes (the modern Chelum) 120 Roman miles.

To the Hyphafis (<i>Beyab</i>)	- - -	390 Roman miles.
To the Hefudrus, probably the <i>Setlege</i> river	- - -	168
To the Jomanes (<i>Jumna</i>)	- - -	168
To the Ganges	- - -	112
To Rhodopa	- - -	119
To Calinapaxa (a city)	- - -	167
To the conflux ‡ of the Jomanes (<i>Jumna</i>) and Ganges	- - -	225
To Palibothra	- - -	425
To the mouth of the Ganges	- - -	638

It must first be observed, of this itinerary, that it furnishes no means of comparing the *whole distance* between the Indus and the mouth of the Ganges, as shewn here, with that on the map; because the second article, namely, the distance from the Hydaspes to the Hyphafis, is obviously wrong, even if the text (which is very obscure) is to be taken at 390: for it cannot be more than 220 of Pliny's miles, unless the surveyor of Alexander's marches threw

* Blackwall.

† Taxila or Tapila, and the Indus, are mentioned as one and the same place by Pliny: *Ad flumen Indum et oppidum Taxila*. Book VI.

‡ Here we may remark, by the way, that if any capital city had stood at the conflux of these rivers, it is likely that Pliny would have taken notice of it.

into the account, the circuitous route to the city of Sangala, &c. after the Catheri or Cathei. So that the account, as far as it regards the *whole* distance, is vitiated; and we must therefore have recourse to *parts*. Taking therefore for granted, that the Beyah river is meant by the Hyphasis (or rather Hypasis) as I hope to prove satisfactorily in my observations on Alexander's march; and measuring on the map, along the line of the great road from the Panjab country to the mouth of the Ganges, the distance will be about 1140 G. miles: and as the itinerary in question gives the length of the same interval at 2022 Roman miles, the proportion of one of Pliny's miles to a geographic mile, will be as 56 to 100, in horizontal distance; or about $\frac{7}{10}$ of a British mile in road distance. This is certainly too short for the Roman mile of 1000 paces*; but the question in the present case, is not the actual distance, but the proportions of the intermediate parts of the road. The conflux of the Ganges and Jumna, on the map, is 990 of Pliny's miles from the Beyah, and 1032 above the mouth of the Ganges: and the itinerary makes the length of the first interval 959, the other 1063; that is, Pliny's account places the conflux too far down by 31 of his miles, or about 17 G. miles. Nor is this difference at all to be regarded in the general question: for our ideas of the distance were much wider of the truth, 20 years ago.

Palibothra, he places 425 miles, or 40 many parts in 1063, of the distance from the conflux of the Jumna to the mouth of the Ganges: and this is the point we are to attend to. Patna indeed, is only 345 of Pliny's miles below the present conflux; and this difference of 80 of Pliny's, or about 44 G. miles, however considerable it may appear to those who expect nice coincidences in such matters as these; does not, in my idea, lessen the general authority of the itinerary: because if we admit only what is literally proved,

* M. D'Anville is of opinion that Pliny turned the Greek stades into miles, at the rate of 8 to a mile; and thus accounts for their shortness. M. D'Anville, who has gone deeply into the subject, thinks that it requires 1050 itinerary stades (or horizontal measure, I apprehend) to make a degree of a great circle. See his *Eclaircissements*, page 55.

Palibothra must still have been situated within 44 miles of Patna. And as the people there have a tradition that Patna stands on, or near, the site of Patelpoot-her, it rather proves to me either that there is an error crept into the copies of the itinerary; which notwithstanding, proves in general, as much as is required; or that the point of conflux of the Jumna with the Ganges, has undergone a change. For although the point of conflux is not found in the very position in which it ought to be by the itinerary, yet Patna is nearer to the position assigned to Palibothra. It may appear to some, a violent way of reconciling disagreements, but it is no new thing for the rivers of India to change their course and place of confluence. I have in another place* taken occasion to observe that the Cosa river changed its place of confluence with the Ganges, which is now 45 miles higher up, than it was. The Burrampooter has varied its course still more. And to come nearer to the site of Patna, the change in the conflux of the Soane, just now remarked. It would be unnecessary to enter so far into a discussion of these differences, had not Pliny assured us, that the distances were measured; and that by order of *Seleucus Nicator*.

We may observe that Arrian does not mention the name *Jomanes* in his book, although he does that of *Sonus*. And if we had no other authority than that passage in Pliny, which expressly says that the Jomanes, a river which passes by *Metbora* (probably *Matura*) runs into the Ganges by Palibothra, we must have supposed that this city was seated at the conflux of the two rivers. But the itinerary says that Palibothra was 425 miles below this conflux. Pliny must therefore have meant another river, different from the Jomanes.

Strabo gives the distance of Palibothra above the mouth of the Ganges at 6000 stadia; and though we cannot fix the exact length of the stade, we can collect enough to understand that 6000 stades

* Philosophical Transactions, Vol. lxxi, page 99.

laid off from the mouth of the Ganges would not reach far, if at all, beyond Patna*. Nor must we forget the passage of Arrian (in Indiciis) in which Palibothra, the chief city of the Indians upon the Ganges, is said to lie *towards the mouths of that river*. But we ought not to omit, on the other hand, that Arrian quotes from Eratosthenes, the distance of Palibothra from the western extreme of India, which is said to be 10,000 stades, only: and that Ptolemy gives its latitude at 27° ; both which particulars apply better to Canoge than to Patna. It is possible that both places may have been occasionally used as capitals of the Prasii, as we have known both Agra and Delhi to have been of Hindoostan in general, during the two last centuries.

Pliny's Palibothra, however, is clearly Patna: and it is probable that Strabo meant the same place, by the distance from the mouth of the Ganges.

Canoge†, the ruins of which are at present of great extent, was, in an early part of the christian æra, the capital of Hindoostan; or rather, of the principal kingdom along the Ganges. It is now reduced to the size of a middling town. It is situated on the right bank of the Ganges, near the place where the Calini river (or Callynuddi) joins it; and is possibly the place meant by Pliny for *Calinipaxa*. It is said to have been built more than a 1000 years before our æra: and is mentioned in Ferishta‡ as the capital of all Hindoostan, under the predecessor of Phoor, or Porus, who fought against Alexander. In point of extent and magnificence, Canoge answers perfectly to the description given of Palibothra; and in some respects to the local position of it given by Ptolemy and Eratosthenes, did not the above authorities assign it in a positive manner to Patna. The Indian histories are full of the accounts of its grandeur and populousness. In the sixth century it was said

* See page 52 where 1050 to a degree is the proportion fixed on by M. D'Anville.

† Latitude $27^{\circ} 3'$, Longitude $80^{\circ} 13'$.

‡ Before Christ 326 years.

to contain 30,000 shops, in which betelnut was sold (which the Indians, almost universally, chew, as some Europeans do tobacco). In A. D. 1018, it was seized on, by the Gaznian Emperors: at which time, it gave its name to the kingdom, of which it was the capital.

Gour, called also Lucknowti, the ancient capital of Bengal, and supposed to be the *Gangia regia* of Ptolemy, stood on the left bank of the Ganges, about 25 miles below Rajmahal*. It was the capital of Bengal 730 years before Christ†, and was repaired and beautified by Acbar‡, who gave it the name of Jennatabad; which name, a part of the circar in which it was situated, still bears. According to Ferishta's account, the unwholesomeness of its air, occasioned it to be deserted soon after§; and the seat of government was removed to Tanda, or Tanrah, a few miles higher up the river.

No part of the site of ancient Gour is nearer to the present bank of the Ganges than four miles and a half; and some parts of it, which were originally washed by that river, are now 12 miles from it. However, a small stream that communicates with the Ganges, now runs by its west side, and is navigable during the rainy season. On the east side, and in some places within two miles, it has the Mahanada river; which is always navigable, and communicates also with the Ganges.

Taking the extent of the ruins of Gour at the most reasonable calculation, it is not less than 15 miles in length (extending along the old bank of the Ganges) and from 2 to 3 in breadth. Several villages stand on part of its site: the remainder is either covered with thick forests, the habitations of tigers and other beasts of prey, or become arable land, whose soil is chiefly composed of brick-dust. The principal ruins are a mosque lined with black marble, elaborately wrought; and two gates of the citadel, which are strikingly

* Latitude $24^{\circ} 53'$, longitude $88^{\circ} 14'$.

† Dow 1st. 6.

‡ A. D. 1575.

§ This is Ferishta's account; but some of its present inhabitants told me that it was deserted in consequence of a pestilence.

grand and lofty. These fabbricks and some few others, appear to owe their duration to the nature of their materials, which are less marketable, and more difficult to separate, than those of the ordinary brick buildings; which have been, and continue to be, an article of merchandize; and are transported to Moorhedabad, Mauldah, and other places, for the purpose of building. These bricks are of the most solid texture of any I ever saw, and have preserved the sharpness of their edges, and smoothness of their surfaces, through a series of ages. The situation of Gour was highly convenient for the capital of Bengal and Bahar, as united under one government: being nearly central with respect to the populous parts of those provinces; and near the junction of the principal rivers that compose that extraordinary inland navigation, for which those provinces are famed: and moreover, secured by the Ganges and other rivers, on the only quarter from which Bengal has any cause for apprehension.

Tandah, or Tanrah, (called sometimes Chawaspour Tanda, from the original name of the district in which it was situated) was for a short time in the reign of Shere Shaw, in about 1540, the capital of Bengal, and became the established capital under Acbar in about 1580. It is situated very near to the site of Gour, on the road leading from it to Rajemal. There is little remaining of this place, save the rampart; nor do we know for certain when it was deserted. In 1639, it was the capital of Bengal, when that soubah was reduced under Aurungzebe: and Rajemal, Dacca, and Moorhedabad, appear to have successively become the capital, after Tanda. Pundua, or Perruah, mentioned as a royal residence in Bengal, in the year 1353*, is about 7 miles to the north of Mauldah, and 10 from the nearest part of Gour. Many of its ruins yet remain; particularly the Addeenah mosque, and the pavement of a very long street, which lies in the line of the road leading from Mauldah to Dinagepour.

* Dow 1st. 340.

Satgong, or Satagong, now an inconsiderable village on a small creek of the Hoogly river, about 4 miles to the north-west of Hoogly, was, in 1566, and probably later, a large trading city, in which the European traders had their factories in Bengal. At that time Satgong river was capable of bearing small vessels; and, I suspect, that its then course, after passing Satgong, was by way of Adaumpour, Omptah, and Tamlook; and that the river called the old Ganges, was a part of its course, and received that name, while the circumstance of the change was fresh in the memory of the people. The appearance of the country between Satgong and Tamlook, countenances such an opinion.

Sonergong, or Sunnergaum, was a large city, and the provincial capital of the eastern division of Bengal, before Dacca was built; but it is now dwindled to a village. It is situated on one of the branches of the Burrampooter, about 13 miles south-east from Dacca; and was famous for a manufacture of fine cotton cloths.

In some ancient maps, and books of travels, we meet with a city named *Bengalla*; but no traces of such a place now exist. It is described as being near the eastern mouth of the Ganges: and I conceive that the site of it has been carried away by the river: as in my remembrance a vast tract of land has disappeared thereabouts. Bengallah, appears to have been in existence during the early part of the last century.

It does not fall within the compass of my design to describe all the principal cities of Hindoostan, which alone would require a large volume; but it may not be amiss to point out their general positions, and the relation in which they stand to the several provinces or states, in which they are situated. Most of the capital cities are already described as they were in the last century, in the books of travels of Thevenot, Bernier, Tavernier, P. de la Valle, &c. which are in every body's hands. Most of these cities, have, I believe, very considerably declined since that time; owing to the almost continual wars and revolutions, that have taken place, since

the death of Aurengzebe; and which were sufficient to desolate any country that did not produce almost spontaneously; and of course, where the deficiency of population is quickly replaced.

Within the tract discussed in the present section, the principal cities are, Calcutta, Moorshedabad, Patna, Dacca, Cossimbazari, Mauldah, and Hoogly, within the Bengal provinces: Benares, within the district of the same name, under the British sovereignty; and Lucknow, Fyzabad, Oude, Jionpour, Allahabad, Bereilly, and Corah, subject to the Nabob of Oude, our Ally: and Agra, late in the possession of *Nudjuff Cawn*. Generally speaking, the description of one Indian city, is a description of all; they being all built on one plan, with exceeding narrow, confined, and crooked streets; with an incredible number of reservoirs and ponds, and a great many gardens, interspersed. A few of the streets are paved with brick. The houses are variously built: some of brick, others with mud, and a still greater proportion with bamboos and mats: and these different kinds of fabrics standing intermixed with each other, form a motley appearance: those of the latter kinds are invariably of one story, and covered with thatch. Those of brick, seldom exceed two floors, and have flat, terraced roofs. The two former classes far outnumber the last, which are often so thinly scattered, that fires, which often happen, do not, sometimes, meet with the obstruction of a brick house through a whole street.

Calcutta, is in part, an exception to this rule of building; for there, the quarter inhabited by the English, is composed entirely of brick buildings, many of which have more the appearance of palaces than of private houses: but the remainder of the city, and by much the greatest part, is built as I have described the cities in general to be. Within these 20 or 25 years, Calcutta has been wonderfully improved both in appearance, and in the salubrity of its air: for the streets have been properly drained, and the ponds filled up; thereby removing a vast surface of stagnant water, the exhalations from which were particularly hurtful. Calcutta is well

known to be the emporium of Bengal, and the seat of the Governor General of India. It is a very extensive and populous city, being supposed at present to contain at least 500,000 inhabitants. Its local situation is not fortunate; for it has some extensive muddy lakes, and a vast forest, close to it. It is remarkable, that the English have been more inattentive than other European nations, to the natural advantages of situation, in their foreign settlements. Calcutta is situated on the western arm of the Ganges, at about 100 miles from the sea; and the river is navigable up to the town, for the largest ships that visit India. It is a modern city, having risen on the site of the village of Govindpour, about 90 years ago. It has a citadel, superior in every point, as it regards strength, and correctness of design, to any fortress in India: but on too extensive a scale to answer the useful purpose intended, that of holding a post in case of extremity; since the number of troops required for a proper garrison for it, could keep the field. It was begun immediately after the victory at Plassey, which insured to the British, an unlimited influence in Bengal: and the intention of Clive was to render it as permanent as possible, by securing a tenable post at all times. Clive, however, had no foresight of the vast expence attending it, which perhaps may have been equal to two millions sterling,

Hoogly is a small, but ancient city on the same river as Calcutta, though on the opposite side; and about 26 miles above it. In the time of the Mohamedan government, it was the *Bunder* or Port of the western arm of the Ganges; where the customs or duties on merchandise, were collected. The French, Dutch, Danes, and Portuguese, have each of them a town and factory on this part of the river, and between Hoogly and Calcutta; and all within the extent of 10 miles, along the river. The French settlement of Chandernagore, and the Dutch one of Chinsura, are both very neat and pretty large towns; and each of them on a better site than Calcutta.

Moorsshedabad, situated also on the western arm of the Ganges which is there very low in the dry season, is about 120 miles above Calcutta. It was the capital of the Bengal provinces until the establishment of the British power: and even long after, it was the seat of the Collector general of the revenues; being a more central situation than Calcutta. It is very large, but ill built; and in its plan so very irregular, that it is difficult to estimate the quantity of ground it stands on. It is a modern city, and does not contain any magnificent buildings, either public or private; nor was it ever fortified except by an occasional rampart thrown up round it, on the Mahratta invasion in 1742 *. This city is now decaying, especially since the removal of the Board of Revenue to Calcutta, in 1771.

Cossimbazar is a small city, nearly adjacent to Moorsshedabad, and was at all times the place of residence of the different European factors; this being the centre of their trade.

Mauldah is a pretty neat city, not far removed from the north bank of the Ganges, and on a river that communicates with it. It arose out of the ruins of Gour, which are in its neighbourhood. In point of general situation, it is about 70 miles to the north of Moorsshedabad. This, as well as Cossimbazar, is a place of trade, and in particular produces much silk.

Rajmahal lies on the west bank of the Ganges nearly in the parallel of Mauldah, and about 20 miles from it; at the foot of the chain of hills which projects into the river, at Sielygully and Terriagully. It is in a ruinous state, although the residence of the Viceroy not 130 years ago; and has hardly the population of an ordinary market town, at present. Its situation is romantic, but not pleasant: for in Hindoostan, the hills and eminences being always covered with wood, that beautiful swelling of the ground, which is so justly admired in European landscapes, is lost; and the fancy is

* See Introduction.

presented at best with nothing beyond a wild scene: which can only be relieved by being contrasted with soft and beautiful ones. M. D'Anville considered Rajemal as being seated at the head of the Delta of the Ganges: but it is more than 30 miles above it.

Dacca is situated in the eastern quarter of Bengal, and beyond the principal stream of the Ganges, although a very capital branch of it runs under it. Few situations are better calculated for an inland emporium of trade, than this; as the Dacca river communicates with all the other inland navigations; and that not by a circuitous, but by a direct communication: as may be seen by the plan of its environs, in the Bengal Atlas. It succeeded Sonergong, as the provincial capital of this quarter; and is the third city of Bengal, in point of extent and population. It has a vast trade in muslins; and manufactures the most delicate ones, among those that are so much sought after in Europe: and the cotton is produced within the province. Dacca has in its turn been the capital of Bengal: and that within the present century. There are the remains of a very strong fortress in it; and within these few years there was near it, a cannon of extraordinary weight and dimensions*: but it has since fallen into the river, together with the bank on which it rested.

Dacca is situated about 100 miles above the mouth of the Ganges, and 180 by the road from Calcutta. The country round it lying low, and being always covered with verdure during the dry months,

* As it may gratify the curiosity of some of my readers, I have here inserted the dimensions and weight of this gun. I took the measures very carefully throughout, and calculated each part separately. It was made of hammered iron; it being an immense tube formed of 14 bars, with rings of 2 or 3 inches wide driven over them, and hammered down into a smooth surface; so that its appearance was equal to that of the best executed piece of brass ordnance, although its proportions were faulty.

Whole length	22 feet 10 $\frac{1}{2}$ inches.
Diameter at the breech	3, 11, 13
4 foot from the muzzle	2 10
the muzzle	2 21
of the bore	1 31

The gun contained 234,413 cubic inches of wrought iron: and consequently weighed 64,814 pounds avoirdupoise: or about the weight of eleven 32 pounders. Weight of an iron shot for the gun 465 pounds.

it is not subject to such violent heats as Moorshedabad, Patna, and other places.

Patna is the chief city of Bahar, and is a very extensive and populous city, built along the southern bank of the Ganges, about 400 miles from Calcutta, and 500 from the mouth of the river. Having been often the seat of war, it is fortified in the Indian manner with a wall and a small citadel. It is a place of very considerable trade. Most of the saltpetre imported by the East India Company, is manufactured within the province of Bahar. It is a very ancient city; and probably its modern name may be derived from Pataliputra, or Patelpoot-her; which we have supposed above to be the ancient Palibothra.

Benares is the chief city of the district commonly known by that name (and which consists of the circars of Benares, Jionpour, Chunar, and Gazypour) but is more celebrated as the ancient seat of Braminical learning, than on any other account; although it be a fine city, and very rich and populous, and the most compactly built of any. It is built along the north bank of the Ganges, and is distant from Calcutta, by the road, about 160 miles. Its ancient name was Kasi: but there are no notices concerning it, in the works of the ancient geographers. I think, if it had existed during the time of the Syrian Ambassadors, Pliny would have noticed it, as he has done Methora (Matura) and Clisobara, which lay near the Jumna river.

Allahabad is seated at the point of confluence of the two great rivers Ganges and Jumna, and succeeded to Piyaug. Acbar founded the present city, which he intended as a place of arms; as its situation is very important both as it respects the navigation of the two rivers, and the country of the Doab, behind it. *Allahabad is about 820 miles above the mouth of the Ganges, and 550 by land from Calcutta. It belongs to the Nabob of Oude, but its fortifications will hardly resist the battering of a field piece.

Luck-

Lucknow is the present capital of Oude, having superseded the late capital Fyzabad, on the occasion of the Rohilla and other conquests; which left it rather in a corner of the kingdom, as it is now constituted, and in that corner the farthest removed from the scene of business. It is a very ancient city, and moderately extensive: but after the short account given above of the nature of the ordinary buildings, a city may very suddenly be augmented on its becoming a royal residence: and Fyzabad of course may have declined. A small river, named the Goomty, runs under Lucknow, and communicates with the Ganges; but this last river is at least 43 miles to the S W of Lucknow. With respect to Calcutta, it is distant by the nearest road, 630 miles; and about 280 from Delhi. All is one vast plain from Lucknow to the mouth of the Ganges.

Fyzabad lies on the river Gogra, a very large river from Thibet, and is situated about 80 miles to the eastward of Lucknow, and 560 from Calcutta. It is a very large city, and nearly adjoining to it, is the very ancient city of Oude or Ajudiah. Fyzabad was the capital of the Nabob of Oude, till within these few years; but it was an inconvenient situation, even before the Rohilla conquest.

Jionpour is a small city on the Goomty river, about 40 miles to the N W of Benares, and in the road from that city to Fyzabad.

Corah, or Corah-Jehenabad is a small city in the Doab or country between the two rivers Ganges and Jumnah. Both this city and Jionpour, are within the Nabob of Oude's dominions.

Bereilly is the capital of Rohilcund, which was added to the dominions of Oude, in the year 1774. It is but a small city and situated about half way between Lucknow and Delhi.

The city of Agra*, as I have said before, is situated at the western extremity of the tract under discussion; and on the south bank of the Jumna river, which is very seldom fordable. This

* Latitude $27^{\circ} 15'$, longitude $78^{\circ} 29'$ by Claud Boudier: $78^{\circ} 28'$ in the map.

city appears to have been during the late century, and in the beginning of the present, the most splendid of all the Indian cities; and at this time exhibits the most magnificent ruins. About the year 1566, the Emperor Acbar, liking its situation, made it his capital, and gave his name to it: since which, it is often named Acbarabad. It was then a small fortified town; but it soon sprung up to an extensive well built city, regularly fortified according to the Indian method, and with a fine citadel of red free-stone. Perhaps it has seldom happened, that a city of such great extent and magnificence has declined so rapidly. If Ptolemy, by Agara, meant Agra, it is certainly a place of great antiquity; but he has not placed Agara in the situation where we should look for Agra. Biana or Baniana seems to have immediately preceded it, as the capital of the province now called Agra, and which was originally included in the kingdom of Canoge.

SECTION III.

The Tract occupied by the Course of the River INDUS and its principal Branches; with the adjacent Countries on the South and East, as far as the Cities of AGRA, and AGIMERE; and the River PUDDAR.

THIS part comprehends in general the soubahs or provinces of Lahore, Moultan, and Sind; with the northern parts of Agimere, and the western parts of Agra and Delhi: and is about 700 B. miles in length from N E to S W, and from 550 to 350 in width. It is bounded on the east by Mount Sewalic, and by an imaginary line drawn from Hurdwar to Agra; on the south by the great road leading from Agra to Agimere, and by the river Puddar; on the west by the Arabian sea, and Persia; and on the north by Cabul and Cashmere.

Delhi, the nominal capital of Hindoostan at present; and the actual capital during the greatest part of the time since the Mohammedan conquest, has its position determined by observations of latitude and longitude; which observations accord both with the maps, and with the popular estimation of its distance, from the nearest points in the surveyed tract, mentioned in the last section.

We first hear of Delhi, as the capital of Hindoostan, about the year 1200. It is reported to have been founded by Delu *, about 300 years before our era; and I believe should properly be written.

* Ferishta. The Ayin Akbari says that the ancient name of Delhi, was Indrapur.

Delly. Although a more extensive and populous city than Agra, it was not so well built. Shah Jahan, grandson of Aebur and father of Aurengzebe, made this city his residence, and directed it to be called Shahjehanabad; and by this kind of vanity, it happens, that most of the Indian cities have a plurality of names: which occasions great confusion, when it becomes necessary to trace any event to a high period of antiquity.

Delhi, which is now situated on the right, or western bank of the Jumna, anciently stood on the opposite bank. It is difficult to ascertain the true measure of extent of this city, which was said to contain, during the latter part of the last century, two millions of inhabitants. It is certain, that the account given by Bernier, who had good opportunities of being informed, and who deserves the greatest credit for veracity, does not justify so high a calculation of its inhabitants. His account was indeed written in 1663, only four years after the accession of Aurengzebe: and it is well known that under his reign, both the empire and capital were greatly augmented. Bernier, I say, estimated the circumference of Delhi at three leagues only, reckoning what was within the fortifications; besides which, he describes several suburbs, but altogether, no extraordinary extent for a capital city in India. He describes Agra as being considerably larger. After the plunders and massacres that it has been subject to, since the decline and downfall of the Mogul empire, we may expect it to be reduced very low: and accordingly, it is spoken of by late travellers as a city of moderate extent; and even for an Indian city, very ill built.

Claud Boudier found the latitude of Delhi to be $28^{\circ} 37'$, and its longitude $77^{\circ} 40'$. A MS. map communicated by Mr. Flattings, and which includes some principal roads in the Dooh, between Farruckabad, Mathura, Anapesheer, and Delhi; gives 51 G. miles of westing from Anapesheer, the nearest point in the survey to Delhi; and 16 of northing: and this agrees perfectly with the observation of longitude, and comes within one minute of the latitude. Delhi is also 40 computed cossees from Ramgaut, another point

point in the survey; but this would place it 4 miles further to the east than the observation. It is placed according to the observation, and the distance from Anopetcheer. Beyond Delhi, westwards, there are no points determined mathematically, by which the length and direction of the route can be ascertained; except the computed distances between places; and some latitudes and longitudes, taken with little precision, if we may judge by a comparison of some of the observations from the same catalogue, with those taken by Europeans. For instance, the latitude of Jionpour and Barhanpour are from 21 to 25 miles too far north, in the *Ayin Acharee*; Oude, 35 too far north; and Delhi, 22 too far south. We have therefore little reason to suppose that any of the others are much nearer the truth; nor is there any rule to guess on which side the error lies. The longitudes are still more vague; as for instance:

The difference of longitude between Delhi and Oude is } Delhi and Jionpour	By the A. A.	By the Map	Difference
	3° 28'	4° 48'	1° 20'
	4 28	5 13	0 45

Here the medium of the difference is 10 minutes too little, in each degree.

And again:

Delhi and Lahore	-	-	5° 16'	4° 53'	0° 23'
Delhi and Moultan	-	-	7 3	7 00	0 3

In these places, although the longitudes in the map are not determined with precision, we may still perceive that the *Ayin Acharee* is not exact. From such kind of materials, nothing very accurate can be expected: and therefore I have never had recourse to them but in a very few cases, where every other species of information has failed.

The construction of the geography of the tract spoken of in this section, turns chiefly on eight *primary stations*, or points; and which will be discussed in order: they are, Lahore, Sirhind, Multan, Attock, Toulamba, Batnir, Jummoo, and Bullaupour.

The first point beyond Delhi that I have any kind of *data* for fixing the position of, is Lahore, a capital city in the Panjab*, and formerly a royal residence. I have several itineraries and memorandums of the road between the two places; but some are defective through omissions, and others too obscure to be understood or followed. Tavernier, for instance, omits a whole stage of 15 cooses, between Furriddabad and Sultanpouir; which added to his original number 191, make 206 cooses. John Steel in his itinerary (1614) reckons only 189: but though I cannot trace any omissions in it, the account is confused and obscure; and therefore I have given it up. A map of the Panjab, obligingly communicated by Colonel John Murray, Commissary General to the army in Bengal, gives the distance at 205 cooses, or 293 G. miles.

Tavernier's account corrected	-	-	-	206
Thevenot's	-	-	-	200
Murray's	-	-	-	205

The medium of which is 203½; or, at 42 cooses to a degree, 291 G. miles. I have allowed 290, and taken its latitude at 31°; so that its longitude will be 72° 47', or 4° 53' west of Delhi. The Ayin Acbarree makes the longitude 5° 16', or 23' more. Its latitude is variously represented: by the Ayin Acbarree 31° 50'; by Thevenot, the same; in an Indian table 31°; by a MS. itinerary† (dated 1662) 30° 20', and by Col. Murray's map 31° 15'.

* Panjab, or the *lands of the five rivers*, is a natural division of the country contained between the 5 eastern mountains of the Indies.

† This itinerary was obligingly communicated by the late Mr. George Perry, and appears to have been kept by a missionary who travelled from Delhi to Persia by way of the Panjab and Sind. It should be observed, that all the latitudes in it are too far south. The latitude of Agra is set down at 26° 45', though its true latitude is 27° 15'. And Moutrau is 26° 32', and Tatta in 24° 20'; which places are commonly taken at 29° 52', and 24° 40'.

Lahore is a very important point in this construction, as it regulates the positions of all the places between Delhi and the Indus; and therefore we have reason to regret that we have no better authority for fixing it.

Lahore is a place of high antiquity, and was the residence of the first Mahomedan conquerors of Hindoostan, before they had established themselves in the central parts of the country. It owed its modern improvements, however, to Humayoon, the father of Aebur, who made it his residence during a part of his troublesome reign. Thevenot says that, including the suburbs, it was 3 leagues in length at that period: and, when he saw it, about the year 1605, the city itself was above a league in extent. Jehanguir, son of Aebur, allowed the Portuguese to build a church there; and some of its furniture remained at the time of Thevenot's visit.

The Rauvee (the ancient Hydraotes) on which it is situated, is a noble river; and by its navigable course, has a communication with the Indus, and all its branches. The province, of which Lahore is the capital, is often named Panjab, than Lahore: however, Panjab being applied to a natural division of country, is applicable also, to part of Moultan. It is very extensive, and remarkably fertile; affording, in addition to all the necessities of life, wine, sugars, and cotton wool; the last of which supplied the manufactories of the province. There are also in the tract between the Indus and Chelun, (or Behat) salt mines, wonderfully productive; and affording fragments of rock salt, hard enough to be formed into vessels, &c. Gold (according to the Ayin Acharee) was found in the channels of its rivers; and the same is related of those of Kamaoon, which proceed from the same ridge of mountains. Ice is brought from the northern mountains, to Lahore, and sold there all the year. The famous avenue of shady trees, so much spoken of, by the early Indian travellers, began at Lahore, and extended to Agra, near 300 English miles. Lahore is now the capital of the Sikhs,

a new power, whose name, even as a sect, was hardly known, until the rapid decline of the Mogul's empire, in the present century.

Sirhind is a city of great antiquity, and lies about midway between Delhi and Lahore. Tavernier reckons it 105 cosses from Delhi; and Steel, 99. I have placed it in its proportion of the whole distance between Delhi and Lahore, which is 103 cosses, or about 147 G. miles. Col. Murray's map gives 108 cosses. Not having the latitude of Sirhind, and the line on which its parallel depends being near 300 miles in length, much must be left to chance, as to its accuracy. It happens, however, that no obstacles present themselves between Delhi and Lahore, to give any considerable elbow or bend, to any part of the road (see page 6); which is therefore, generally speaking, very straight; and only making a small bend northwards, in the neighbourhood of the Jumna river. Sirhind stands in the map, in lat. $26^{\circ} 45'$, lon. $75^{\circ} 15'$.

I find by Condamine's travels in Italy, that the art of weaving silk was brought back to Constantinople in the sixteenth century, by the monks who returned from Sirhind (see *Serinde* according to him). For although the art was brought into western Europe, under the Roman Emperors, it had again been lost during the confusions that attended the subversion of the western empire.

It is worthy of remark, also, that Procopius takes notice, that silk was brought from *Serinda*, a country in India, in the time of Justinian (in the sixth century). The reader is apprized, that silk, together with the Latin name of it, is understood to have been brought from *Seres* or *Serica* (a country of upper Asia, bordering on the N W of the Chinese wall). This was Pliny's idea: how just, I know not. The Ayyin Acharee takes no notice of any manufactures of silk at Sirhind: it only calls it a famous city (in the sixteenth century).

Between Delhi and Sirhind are very extensive plains, within which are situated the towns of Panniput, and Carnaul, famous for great battles, both in ancient and modern times. The reason

of it, is obviously, the nature of the country, between it and Delhi; for it is a vast plain, situated at the mouth of a pass; for such the country immediately on the west of Delhi may be considered to be, shut up by the mountainous and close country of Mewat and Agimere on the one hand, and by the Jumna river on the other: and whether Delhi, Agra, or Canoge, was the capital, this was the road to it from Tartary and Persia, the original countries of the conquerors of Hindostan. The course of the Jumna, above Delhi, is determined in the map by the direction of the road to Sirhind; Kangipura, near that river, being placed in reference to Carnaul; from whence the river bends (according to the MS. maps) towards the N E to Schahmampur and Neri. Mr. Forster, who crossed it in his way from Loidong to Jumnao, estimated the distance between the Ganges and Jumna at about 40 cosses, in a north-westerly direction. The place of the source of the Jumna, we are ignorant of; but it would appear to be remote, even from the place where he crossed it within the mountains; for he found it a large river.

The upper part of the Doab*, or tract of land between the Ganges and Jumna rivers, has its geography from several MS. maps; and a few of the positions are from Sherieffeddin's history of Tamerlane, translated by M. de la Croix.

Between Carnaul and Sirhind, are found in these MS. maps, three streams or rivers, crossing the great road. Two of them are the Gaggar (or Kenker) and the Sarrooty (or Serefiwary) and the third has no name in the maps. The first is taken notice of in the Ajin Acharee, as one of the lesser streams in the *subah* of Delhi, and as passing on the west of Tannasar, a celebrated place of Hindoo worship. The second passes between Umballa and Sirhind; and the third between the two others. It is probable, from circumstances, that there may be others, although deemed too insignificant

* See an explanation of the term Doab, in the Introduction.

to merit notice. All these streams run to the south, or south-west; and probably mix either with the Indus, or Puddar: though I formerly supposed them to run to the S E into the Junna. I had also, with M. D'Anville, supposed the Caggar to be the *Hesudrus* of Pliny, situated half way between the *Hyphasis* and *Jomarus*: but having now discovered the Beyah to be the river meant by the ancient *Hyphasis*, there can be no difficulty in pronouncing the Setlege or Suttuluz, to be the *Hesudrus*, as it answers in point of proportional distance.

I cannot find what river is meant by the Jidger, often mentioned by Ferishta, unless it be a branch of the Caggar; which river, as well as the Sursooty, has its source in the Sewalik mountains, between Delhi and Sirhind; taking its course by Semanah and Sunnam. The Sursooty, we learn by the MS. maps, after passing by Tannasar, Sarfa or Sursutta, &c. joins the Caggar.

Near to Tannasar and the lake Koorkhat, places of Hindoo worship, is the site of the ancient city of Hastinapur, and of the war of the MAHABARUT (an episode of which has been lately translated from the original Sanscrit, by Mr. Wilkins) so that this ground, which is not far from Carnaul and Fanniput, has been the scene of war in all ages, poetically, as well as historically. The countries between Delhi, and the Panjab, being scantily supplied with water, the Emperor Feroze III. undertook the noble as well as useful task of supplying it better, and at the same time meant to apply the water so furnished to the purposes of navigation. Dow, (Vol. 1st. p. 327) translates Ferishta thus: "In the year 1355, Feroze " marched to Debalpore, where he made a canal 100 miles in " length, from the Suttuluz to the Jidger. In the following year, " between the hills of Mendouli and Sirmore, he cut a channel from " the Junna, which he divided into seven streams; one of which " he brought to Hessa, and from thence to Beraisen, where he built " a strong castle, calling it by his own name. He drew soon after, " a canal from the Caggar, passing by the walls of Sirsutta, and " joined

"joined it to the river of Kera; upon which he built a city, named
 "after him, Feroseabad. This city he watered with another canal
 "from the Jumna. These public works were of prodigious advantage
 "to the adjacent countries, by supplying them with water for their
 "lands, and with a commodious water-carriage from place to place."
 We learn also from the *Ayin Acbaree*, (Vol. II. p. 107 English
 translation) that Ferose founded the city of Hissar, (called also Hissar-
 Feroozeh) and dug a canal from the Jumna to it. And we find,
 moreover, that the canal from the Jumna at Kungiparah, to
 Delhi, was the work of Ferose: and is probably one of the seven
 channels mentioned by Ferishta. I apprehend then, that Hissar,
 or Hissar-Feroozeh, of the *Ayin Acbaree*, is the same with the Fe-
 rosabad of Ferishta. But possibly, Ferose might only embellish
 and increase the fortifications of Hissar, and then give his name to
 it; a practice very common in Hindoostan, to the utter confusion
 of historic records, and no less injustice to the original founders.
 The town of Sursuttee, by the authority of the MS. maps and other
 circumstances, I place on the river of that name between Tannahr
 and Kythil (or Kuteil); and Haffi or Hanfi, on the west or S W of
 Kythil. Hissar, or Feroseabad, will occupy a place still further to
 the S W; and in this position, will be about 75 cosses from Delhi,
 in a west, or west-northwardly direction; and about 100 miles
 from the Setlege or Suttuluz, at the nearest part of Debalpour, from
 whence the canal was said to be drawn. The rivulet of Kera, I
 cannot trace, any more than the Jidger: but I think it will appear
 as clear to the reader, as to myself, when the text, and the different
 positions in the map, are considered, that these different canals had
 for their immediate object, the junction of the Setlege and Jumna
 rivers; and remotely, that of the Indus and Ganges; although
 they do not allow us to comprehend the whole scope of Ferose's
 plan of inland navigation. By a slight inspection of the map, it
 will appear that this project would, if the ground admitted of its
 being successfully put into execution, be one of the greatest under-

takings of the kind that ever was projected; that of cutting through the isthmus of Suez, only excepted. We should then have seen two capital rivers, which traverse a large part of the continent of Asia, which enter the sea at 1500 B. miles asunder; and which stretch out their arms as it were, to meet each other; united by art, so as to form an uninterrupted inland navigation from Cabul to Assam. I take it for granted that this canal was never completed, otherwise we should have heard more of it, as we have of the canals leading from the Jumna. The distance between the navigable parts of the Jumna and Setlege, is not 120 B. miles, direct.

Again, (in page 329 of Dow's 1st volume) it is said that Ferishta turned the course of a large rivulet which fell into the Setlege, from Hirdar in the province of Sirhind, into the Selima, a smaller rivulet that ran southwards towards Sunnam (a place 14 G. miles S W of Semanah). Improvements of this kind occur so seldom in the history of Hindoostan, where barbarous conquests and massacres, are the principal subject, that they are dwelt on with pleasure, whenever they appear: and we have only to regret on the present occasion, that the description of them is so obscure.

Semanah (or Sammanah) has its distance given from Panniput, at 52 cosses, in Sherefeddin; but its distance from Sirhind is inferred from the line of Tamerlane's march from Batnir to Panniput. I had placed it 43½ G. miles in a S by E & E direction from Sirhind; and find it in Col. Murthy's map nearly the same distance (44 miles) but on a S by W bearing. It is included in the circar of Sirhind, and the circar of Hissar, lies immediately to the south of it. On the west and S W of Hissar and Semanah, our knowledge, both geographical and political, is very much confined. Timur's (or Tamerlane's) route from Batnir, the course of the Caggar river, and the road from Agniere to Jesselmere, is all that we have towards filling up so large a void. The first is from Sherefeddin; the others from Mr. Hastings's, and Col. Popham's MS. maps.

The

The common boundaries of Agimere, Delhi, and Moultan, we have no means of ascertaining: nor is the Ayin Acharee particular enough on this subject, to lend any assistance towards it. Mewat, or the hilly tract lying on the west of the Jumna, between the parallels of Agra and Delhi, as well as the northern and eastern parts of Agimere, which are mountainous, also, have their geography much improved by the MS. maps communicated by Mr. Hastings, and Col. Popham. There is little to be said on the subject of the construction of these parts. Agimere, which is the primary point that determines the parallel and scale of the western parts, will be discussed in the next section, to which it properly belongs: the positions on the north and east of it, are taken chiefly from the MSS. just mentioned.

Jaepour or Jaynagar, the capital of one of the Rajpoot Princes in the eastern quarter of Agimere, has its longitude given by Claud Boudier, at $76^{\circ} 9'$ or $2^{\circ} 19'$ west from the city of Agra. All the MS. maps that I have consulted, place it very differently; and, I find, I cannot allow a greater difference than $1^{\circ} 55'$, without rejecting the scales of all the MS. maps; which, as they are formed from the difference of latitude, would be absurd. Perhaps the numbers in Claud Boudier's table, are not right: M. D'Anville has them at $76^{\circ} 5'$ in the *Eclaircissement*, which is still wider from probability.

It appears by M. D'Anville, that the Rajah of Jaepour (by name Jessing) had erected two observatories, one in his newly built capital, of Jaepour (which is about a league from Umbeer or Ambeer, the ancient capital), the other in one of the suburbs of Delhi. Father Claud Boudier, at the Rajah's request visited the former of these observatories about the year 1732; and I think it probable that we are indebted to the Rajah's assistance for some others of the observations made by Claud Boudier; particularly those at Agra and Delhi. The latitude of Jaepour is $26^{\circ} 56'$; and M. D'Anville

in his *Antiquité de L'Inde* reckons it 50 leagues from Delhi, which accords well with my idea of the distance between them.

The MS. maps which I have so repeatedly mentioned as being communicated by Mr. Hastings and Col. Popham, together with others formerly in the possession of Col. Muir, and since his death*, obligingly communicated by my friend Mr. Bentley, of the East India Direction, are corrected in bearing and scale by the primary points of Agra, Delhi, and Agimere; but only a very trifling alteration was required. It may be observed, in respect of the new matter contained in these communications, that a great number of places appear, that were familiar to us, as well in the history of former times, as in the account of recent transactions; but which we could not, heretofore, refer even to any general situation in a map. Still however, much is wanting, to render in any degree perfect, the geography of the tract in question, both as to mathematical exactness, and to relative description: in particular the latitudes and longitudes of Lahore, Sirhind, Attock, Moultan, Batnir, Agimere, Cashmere, Jummoor, Sehaunpour, &c.; together with the intermediate roads and particulars of the face of the country, and the course of the river Indus. Until these are procured, we must be content to remain in ignorance concerning many curious particulars of Indian geography; and satisfy ourselves with having the situations of places that are the most interesting, either from having been the subjects of history, or as being connected with the politics of the present times.

The next place in point of consequence to the construction of this part of the map, as it regulates many of the northern positions, is Attock, a city and fortress on the east bank of the Indus, and built by Achar, in the year 1581. We shall have occasion to speak on the subject of its historical importance, hereafter. The position

* It is probable that the severe indisposition to which Col. Muir was constantly subject, from the moment of his arrival, to the time of his death, left him no leisure to recollect that such materials were in his possession. This excellent officer, and most worthy character, died in 1786.

of this place, geographically, can only be regulated by the apparent bearings from Lahore and Moultan, in a Persian map of the Panjab, together with the distances collected from the different accounts in the same map; in itineraries; and in the *Ayin Acharee*. The latter gives for the breadth of the Panjab, from Ludhana to Attock, reckoning from river to river, on the line of the roads between them 185 *coffes*; and as two of these roads make a considerable angle with each other, I allow the distance on a straight line to be only 180 *coffes*; or 259 G. miles. Some accounts that I have seen of the number of *coffes*, are too much exaggerated, to be depended on, or noticed; and I rely on the *Ayin Acharee*, in preference to them. The MS. map communicated by Col. Murray, gives 181 *coffes*, or 260½ G. miles, for the whole distance: but although it comes so very near to my calculation in the general account, it differs in the measure of each particular Doab, or space, between two adjoining rivers. Attock is placed accordingly, 259 G. miles from Ludhana, on the bearing from Lahore, as nearly as it could be collected from the Persian map: and these data give its latitude at $32^{\circ} 27'$; lon. $76^{\circ} 36'$. Col. Murray's map places it in lat. $32^{\circ} 23'$. Moultan, supposed, with great appearance of reason, to be the modern capital of the country, which was designed by the historians of Alexander, under the name of *Mallia*, is 90 *coffes* from Lahore (south-westward) according to the Persian map; 120 according to Thevenot's account; and 110 in Col. Murray's map. The *Ayin Acharee* takes no notice of the distance between them; but gives the latitude and longitude of both. The latitude is also given by Thevenot, and by the Missionary's itinerary; and when allowance is made for the latter, in the same proportion as it differed from the true latitude at Agra, the three observations differ among themselves 22 minutes. That is, the *Ayin Acharee* gives $29^{\circ} 13'$, Thevenot $29^{\circ} 40'$, and the itinerary $29^{\circ} 32'$, which with the addi-

* Ptolemy's latitude of Taxila, which I suppose to be nearly on the site of Attock, is $32^{\circ} 20'$.

tion of $30'$ (see note, page 68) gives $30^{\circ} 2'$. I have placed it in $29^{\circ} 52'$; which, on the aforesaid distance of 90 cossees from Lahore, gives $70^{\circ} 40'$ for its longitude; or 7° west from Delhi. The Ayin Acbaree makes it $7^{\circ} 3'$: which agrees very nearly with the 90 cossees in the Persian map. This distance also accords with the bearings in the same map; where Moultan stands S a very little E from Attock, and about 60° to the westward of S from Lahore. And Col. Murray's map has nearly the same bearings. These three primary points of Lahore, Attock, and Moultan, vaguely as they may appear to be ascertained, are the foundation on which the scale, and relative parts of the whole Panjab country depend.

Thevenot describes Moultan as a city of small extent for the capital of a viceroyalty, but strongly fortified, and having a Hindoo pagoda of great celebrity. The Ayin Acbaree represents it, as one of the most ancient cities of Hindoostan. It has, or had, a great manufacture of cotton cloths; the province itself producing the cotton; as well as sugar, opium, galls, brimstone, &c. Thevenot describes the river that led to Moultan, as being partly choaked up, or spoiled, in its channel, in his time (about 1665) and this had greatly lessened its trade. He also takes notice of a particular sect of Hindoos there, called *Catry*; and says, that this is their proper country. In another place, he explains the *Catry* tribe, to mean *Rajpoots*, or warriors; that is, the *Kuttry* tribe, properly. We shall take notice hereafter, that these *Catrys* were the *Gatheri* of Diodorus, and the *Catbei* of Arrian; with whom Alexander warred, on the borders of the *Malli*. Moultan belongs now to the Seiks, though the possession of it, as well as Lahore, has been often disputed by the Abdalli.

I have not extended the large map of India further to the north, than Attock and Jummoo; because it would have added considerably to the width of it, without furnishing any subject, particularly interesting to modern enquiries: and the materials are not of a quality or quantity proper to correct the geography of that part, on an extended scale. I have therefore added a map on a smaller scale,

in which the tract between the Panjab, Bochara, &c. is described; and a separate account of it will be given in the course of the Memoir.

The river called by Europeans Indus, and by the natives generally Sinde* (or Sindel) is formed of about 10 principal streams which descend from the Persian and Tartarian mountains, on the north-east, and north-west. The Ayin Acharee describes its source as being in Cashgur and Cashmere; by which it appears that the people of Hindoostan consider the north-east branch as the true Sinde†. From the city of Attock, in about lat. 32° 27' downwards to Moultan, or to the conflux of the Jenaub, or Chunaub, it is commonly named the river of Attock, which in the Hindoostan language, imports *forbidden*: probably from the circumstance of its being the original boundary of Hindoostan on the north-west; and which it was unlawful for the subjects of Hindoostan to pass over, without special permission‡. Below the city of Moultan, it is often named Soor, or Sheor, until it divides itself into a number of channels near Tatta; where the principal branch takes the name of Mehran. The river, however, when spoken of generally, is called Sinde, although particular parts of it are known by different names. The course of the Indus below Moultan, has its particulars from M. D'Anville; but the general direction of its course, is considerably more to the west, than he describes it. This is occasioned by my placing its *embouchure* so much farther west than usual, in respect of Bombay (see page 36) while the position of Moultan remains nearly as it formerly was. I observe that most of the old maps of India give the Indus much the same course as I have done.

* The name Sinde was not unknown to the Romans: *Indus incolæ Sindem appellabant*, Pliney, Book VI.

† The ancients reckoned otherwise: the same Pliney continues to say, *id jussu Cæsar si montis, quod vocatur Paropamisus, ad versus solis ortum effusus*.

‡ Superstition gave birth to this law, among the Hindoos: a precept nearly allied to that, which forbids their eating any food dressed on board a boat or vessel. Herietha calls the river on which Attock is built, NILAN; *anglice*, the blue river. There is so much confusion in the Indian histories, respecting the names of the branches of the Indus, that I cannot refer the name Nilab to any particular river, unless it be another name for the Indus or Sinde.

The Missionary's itinerary beforementioned, gives the names of many places, and some latitudes, on the Indus. It places the fortress and city of Bhakor, which the Ayin Acbarce says, is the ancient Manfurah (though D'Anville says the contrary) in latitude $27^{\circ} 12'$; Tatta in $24^{\circ} 20'$; and Bunder Lawry (called also Bunder Laheri) in $24^{\circ} 10'$. All these, I take to be, from 20 to 30 minutes too far south.

Moulton is about the same distance from the sea, as Allahabad; that is, about 800 B. miles by the course of the river; and our author was 21 days in dropping down with the stream, in the months of October and November: when the strength of the land floods were abated.

The boundaries of the provinces of Moulton and Sindy on the west, extend a considerable way beyond the bank of the river; that is, to say, from 50 to 100 miles. The country is in general flat and open from Moulton to the sea; and the province of Tatta itself (the *Patala* or *Patala* of Alexander) is said to resemble Bengal, not only in the flatness of its surface, richness of soil, and periodical inundations; but also in the food of its inhabitants, which is chiefly rice and fish. The site of the ancient capital, Braminabad, is near Tatta; and, in the time of Acbar, some considerable ruins of it were remaining; particularly the fort, which is said to have had an astonishing number of bastions to it. Tatta is made synonymous to Daibul, in the Persian tables (which were obligingly lent me by Sir William Jones, and are those mentioned in his preface to Nadir Shah) where it is placed in $24^{\circ} 10'$. The itinerary says $24^{\circ} 20'$, and D'Anville $24^{\circ} 40'$. I have placed it according to its reputed distance from the mouth of the Sinde, which brings it to $24^{\circ} 45'$.

The country known by the name of Panjab, or that watered by the five eastern branches of the Indus, has been very little known to

* Pliny reckons the length of the *Patala*, or Delta of the Indus, at 220 Roman miles; in which he was very near the truth, it being about 210.

us in modern times, either geographically, or politically. However, it deserves notice, if only on the score of ancient history; being the scene of Alexander's last campaign, and the *ne plus ultra* of his conquests. Here some new matter offers; having before me, a map of this country drawn by a native, and preserved in the archives of government in Hindoostan. The names were obligingly translated from the Persian, by the late Major Davy, at the request of Sir Robert Barker. The tract, of which this map serves as a ground work, is a square of about 250 B. miles; and includes the whole soubah of Lahore, and a great part of Moultan proper. The points of Lahore, Attock, and Sirhind (the fixing of which, I have before given an account of) determine the scale of the map; the intermediate distances from place to place in it, being given in writing, and not by a scale.

I consider this MS. as a valuable acquisition; for it not only conveys a distinct idea of the courses and names of the five rivers, which we never had before: but, with the aid of the Ayin Acharee, sets us right as to the identity of the rivers crossed by Alexander, during his famous expedition into India; of which more will be said hereafter.

Beside the places found in this map, I have inserted others; from the authority of the Ayin Acharee: several from implied situations in Ferishta; others from Sherefeddin's history of Timur*; (particularly his march from Toulomba to Adjodin and Batnir) and others from various MSS. in my possession. The division of the country, is entirely from the Ayin Acharee.

The town of Adjodin, often mentioned by Ferishta, and Sherefeddin, is recognized in the MS. map, by the circumstance of its containing the tomb of Sheik Furrid, which was visited by Timur. In the map it is called *Paukputton*; but it perfectly answers to the

* Translated by M. de la Croix.

position of 'Adjodin, as described by the above authors; and is a point, on the fixing of which a great many others depend.

The next river to the east of the Sinde, or Attock, and the westmost of *the five rivers*, is, in modern language, called Belut, or Chelum; whose general course is nearly parallel to that of the Attock, but its bulk is less. This is the famous Hydaspes of Alexander, and said by the Ayin Acharee to be anciently called *Bedusla*. It runs through Cashmere; and was supposed by M. D'Anville (though erroneously) to join the Sinde at Attock. Tavernier seems to have led M. D'Anville into this mistake; which has finally been the occasion of his misplacing, and of course misnaming, all the other four rivers. The fact is, that the river which runs by Cabul, and bears the name of Attock, joins the Sinde on the west side, and in front of the city of Attock. We are obliged to Mr. George Forster for clearing up this mistake. He travelled that way in 1783.

The second river is the Jenaub, or *Chitnaab*; and is the Acesines* of Alexander. The third is the Rauvee, or Hydraotes† of Alexander; on the south bank of which stands the city of Lahore. These three rivers successively unite with each other at some distance above Moultan; and form a stream equal to the Indus itself, at the place of confluence; which is about 20 miles on the west of Moultan; and 50 below the mouth of the Rauvee. It is remarkable, that the Jenaub communicates its name to the confluent streams in these times; as it did in Alexander's time, under the name of Acesines. Its rapidity and bulk are particularly remarked by the historians of Alexander and of Timur. The fourth river is the Beyah, anciently called *Beypasba*, and is the *Hyphasis* or *Mupbas* of Alexander; being the next in succession to the *Hydraotes* or modern Rauvee; and the fifth is the Setlege, Suttuluz, or Sutluj.

* The Ayin Acharee does not give the ancient name of the Jenaub; Ptolemy names it *Sandabul*.

† Said by the Ayin Acharee to be anciently named *Irawatty* (Mr. Gladwin's translation). Mr. Boughon Rouse translates it from his copy of the Ayin Acharee, *Irawati*.

This last river, about midway between its source and the Indus, receives the Beyah: after which, they do not mix their waters with the other rivers of the Panjab, but join the Indus in a separate stream, a great way to the south of Moulton; while the other three rivers pass in a collective stream on the north of Moulton, and close under it. Ptolemy names the last river of the Panjab (going eastward) the Zaradrus; Pliny, the *Heiudrus*. Arrian has the name of Saranges among his Panjab rivers; and says that it joins the Hyphasis (or Beyah). The Ayin Aabaree says that its ancient name was *Sbetoder*; from whence we may easily trace Setluj, or Suttuluz. Before it is joined by the Beyah, it is a very considerable river, and is navigable 200 miles. About 24 miles below the conflux, a separation again takes place*, and four different streams are formed; the northernmost and most considerable of which, recovers the name of Beyah; and is a deep and rapid river. The others are named Herari, Dond, and Noorney: and near Moulton, they unite again, and bear the name of Setlege, until both the substance and name are lost in the Indus, about 80 miles, or three days sailing†, by the course of the river, below the mouth of the Jernab. It is owing to the separation that takes place, after the first confluence of the Beyah and Setlege, I apprehend, that so many names are given to the latter, by modern, as well as ancient authors. which names, applied by the natives, to their respective branches; have, by Europeans, or others, who were ignorant of the circumstances, been supposed to belong to one principal river only. The Persian map of Panjab, and Sherefeddin's history of Timur, take notice of only one branch, besides the Beyah (whence one would conclude there were only two principal ones) and this second river is named Dond possibly the same name as in the Ayin Aabaree, by the Dond.

* Ayin Aabaree.

† Missionary's Itinerary.

Although we have the dimensions the Panjab country, in a tolerably satisfactory manner, from N W to S E, both in the aggregate, and in particulars, yet we have not the means of determining its breadth from north to south; or rather, from Lahore to the Setlege. The first junction of the Beyah and Setlege, is stated by the Persian map, at 63 cosses below Ludhana; but we are left to guess the cross distance from Lahore, unless what is said in the same map, be true, that it is only 18 cosses from Lahore to Kustoor, and also that Kustoor is on the banks of the Setlege: but this is highly improbable from other circumstances, in particular, that the same Persian map allows a greater space between the Rauvee and Setlege, than between the Rauvee and Jenaub. Col. Murray's map places Fustoor on the Beyah, and not within 25 cosses of the Setlege. The marches of Timur across the lower parts of the Panjab, afford but a faint light to guide us, such as day's marches; and those in an oblique direction.

The authorities on which I have founded the geography of the Panjab after fixing the primary points already discussed, are the following:

The Persian map furnishes a general idea of the courses of the rivers, and these serve as a kind of ground-work, or *first idea*. It also furnishes some positive distances, and the Ayin Akbaree many others: and the march of Timur, and the Munhony's itinerary, furnish some proportional, or comparative ones. Toulouba, or Tulmabini, which is considered as a *primary point*, is a fortress on the south bank of the Rauvee, 35 cosses above, or to the E N E of Moulton; or 5 days out of 8, of the voyage from Lahore to Moulton†: and the general direction of the river, is nearly straight, in the Persian map. By these helps we have a point settled, in respect of Lahore and Moulton: and from it, Timur's route may be traced across the Panjab, both ways:

* Sherefeddin.

† Itinerary.

that is, *back*, towards the Indus, the way he came, and *onward*, by the route of Batnir and Delhi. According to Sherefeddin's manner of writing, one could hardly be certain, whether Toulomba was on the side of the Rauvee, or the Jenaub. Ferishta has placed it on the latter, erroneously; for the missionary came down the Rauvee, and passed by it, moreover giving its latitude as 15° north of Moultan, though it is probably 25°. Timur made one day's march, from the conflux of the Chelum and Jenaub, to this place, and as he did not bring the army with him, but left them crossing the river, it may be inferred that the march was not a short one, and therefore I allow 14 coses for it, in a S S E direction, that being the position of Toulomba from the conflux, by the above construction. A fortress, not named, stood on the west side of the conflux; and just below it, Timur threw a bridge across. Before Timur arrived at this place, he had marched according to Sherefeddin, 5 or 6 days along the western bank of the Chelum, after he had taken the fortress of Sheahedin Mobarick, in an island of that river. This is all that we are told of the particulars of his march, from the Indus, to Toulomba. The Indus he crossed, (I take it for granted) at, or very near, the place where Attock now stands (for it was built, more than a century and half after, by Acbar) as he came by way of Nagaz and Banow. Sherefeddin relates that he crossed the Indus, at the place where Gelali or Gelateddin (King of Charasim) did, when he fled from Gengis Cawn, and this I think may be ascertained to be the same place*. The history of Gengis † gives no satisfaction on this head, but represents Gelali as choosing the most difficult part of the river for the

* My opinion is (I think) strengthened by a remark in the Persian map of Panjab. A mountain near the Indus, a very little below, and on the opposite side to Attock, is marked *Mawat Yulalakah* (or *Gelali*) most probably from its being the place from whence the Father of Gelali crossed the Indus, in his flight from Gengis Cawn in 1221. When Timur had crossed to the east side of the Attock, or Indus, he was said to be arrived in the *Djert of Gelali*: therefore I have no doubt but that they both crossed nearly at the same place. Gengis Cawn remained on the west side of the river.

† Written by M. de la Croix.

rear of the field of battle, to preclude all hopes of flight, from his army: and this (if true, for Gelali himself swam across) by no means contradicts my opinion; because, in the neighbourhood of Attock, there must be many difficult places, Attock itself being on the only practicable part thereabouts.

But to return to Timur. After he had crossed the Indus over a bridge of boats*, we learnt that the chiefs of the mountain of Jehud or Joud came to make their submissions to him, as Ambassadors, King of the same country, did to Alexander, about 1730 years before. The Jehud mountains, are those which extend from Attock, eastward to Bember; and are a part of the territory of the mountaineers, sometimes, designed under the name of Gickers, Gehkers, or Kakures.

Timur's first object after crossing the Indus, being to effect a junction with his grandson Peer Mahmud's army, which was then besieging Multan, he directed his course that way, instead of taking the common road to Delhi, by Rotas and Lahore. The neighbourhood of a navigable river, being a desirable object to an army marching through a dry sterile country, he pushed for the nearest part of the Behut, or Chelum river (the Hydaspes of Alexander) where he attacked and took the fortress and island of Sheabadin. After this, he marched as has been said before, along the Chelum, and crossed that river, and the Jenaub, below their conflux; and went from thence to Toulomba, which we have just left. This is a considerable town, and a pass of consequence on the Ravee river; and often occurs in Ferishta's history of Hindoostan. It was in the neighbourhood of this place, that Alexander made war on the Malli, or people of ancient Multan, as will be taken notice of, in its place. Timur staid here 6 days, and then proceeded with the whole army across the Baree Doabah † to Shahnawaz (or

* October 11, 1398. The chronology of this event is differently stated; I have followed M. de la Croix's translation.

† The term Doab or Doabah has been explained before. See the Index.

Shanavas) a large and populous town near the north bank of the Beyah, after its *separation* from the Setlege. Here he found more grain than his army could consume; whence we may infer the fertility of the country, which is low and flat, and subject to periodical inundations like Bengal. Sherefeddin describes at this place a deep lake, fortified round with a wall, and defended by 2000 men. (This reminds one strongly of something similar at Sangala, which Alexander attacked, before he reached the Hyphasis; only the hill, which was fortified round with carriages, is wanting). Shahnawaz is about 95 B. miles from Lahore; and Sangala was only 3 days march from the place where the Hydraotes, (Ranvee) was crossed, supposing it to be at the place where Lahore stands.

It was something more than a days march from Toulomba to Jengian, a town on the south bank of the Beyah, opposite to, and not far from Shahnawaz. As Timur's army was 3 days in passing this river, some in barks, and others by swimming, it may be reckoned a considerable river. Its distance from Moultan is given at 40 cosses*: and I have allowed 13 cosses for its distance from Toulomba, in a south-east direction, as their distances from Moultan, indicate.

At Jengian, Timur staid 4 days, and was joined by Peer Mahomed, who had by this time taken Moultan. Timur's next station is Jehaul, two days march from Jengian, on the road to Delhi; and here he separated from his grand army, which he directed to proceed by Debalpour, and to rendezvous at Semanah, a town 80 or 90 cosses on the west of Delhi; while he proceeded with 10,000 horse to Barnir or Battenize†, a strong fortress about 70 cosses from Jehaul, and far to the right of the Delhi road; being beyond the desert which stretches along the south side of the Setlege. He was led to this place, from resentment, at its giving protection

* Sherefeddin.

† The name of this place does not occur in the *Ayin Acharee*.

to the people of Debalpour, who had massacred a garrison of Peer Mahmud's: and possibly the great reputation it had for strength, might be one inducement to undertake the siege of it; as Aernos, in like manner invited Alexander.

Timur, after leaving Jehaul, proceeded the first day to Adjodin, (of which we have spoken before) a town included in one of the large islands formed by the branches of the Setlege: and this being 3 days march from Jengian, I estimate the distance from it at 30 cosies, or 43 G. miles. As the Delhi and Batnir roads, separated at Jehaul, Adjodin may probably lie S E from it: and the whole course from Jengian may be taken at E S E.

At Adjodin, Timur visited, and spent some time in devotion, at the tomb of Sheik Furrid (see page 81) and then set forward for Batnir, which is stated by Sherefeddin at 60 cosies from Adjodin. This may be reckoned $8\frac{1}{2}$ G. miles: and the distance from Batnir to Semanah, appears to be 8 days march, in which he was sometimes delayed by his military operations; yet having a light army, it may be supposed that he marched 85 cosies in the 8 days*. And from Semanah to Panniput, the number of cosies are given at 52†; so that the whole number 137, from Batnir, may be stated at $193\frac{1}{2}$ G. miles: something being deducted for the desert nature of the country, in the Batnir province.

‡ If therefore 60 cosies, or $85\frac{1}{2}$ G. miles, be laid off from Adjodin to Batnir, and $193\frac{1}{2}$ from Panniput, the intersection will place Batnir in lat. $28^{\circ} 39'$, lon. $73^{\circ} 20'$; and it will bear about S S E $\frac{1}{2}$ E from Adjodin.

On the south-east of Adjodin, a few cosies, Timur crossed the river Dena; which I take to be one of the four branches of the Setlege, (possibly the Dond) and perhaps the only principal one among them, except the Beyah, already noticed.

* Two days marches are mentioned, one day 14 or 15 cosies; another 13 cosies. It is not easy to collect the distance from Sherefeddin's account of Timur's marches: but we find he was eight days on the march.

† Sherefeddin.

It must not be omitted that Timur crossed an extensive desert in his way to Batnir : I mention this particular to shew that Alexander was not misinformed, when he was told that there was a desert beyond the Hyphasis *. After taking and destroying Batnir, which employed only a few days †, he marched on the 30th of November, taking nearly the straight road to Semanah ; where he joined his grand army on the 8th of December 1398.

His march from Semanah to Delhi, about 88 cosses, appears to have taken up 12 days ; whence we may collect, that the common marches of his grand army, were about $7\frac{1}{2}$ cosses each day ; or about 14 or 15 British miles, by the road.

On his return, he made an excursion to the north-east into the Doab, took the city of Merat, or Mevat, (called Mirte by de la Croix) 30 cosses from Delhi, and advanced to the Ganges, near the place where it issues out of the Sirinagur mountains. Togloctpour, and the straits of Cupele, two places of victory on the eastern bank of the Ganges, cannot now be recognised : but from Sherefeddin's account of the march, they cannot be far from Loldong ; where the British army completed their campaign in 1774, 1100 British miles from Calcutta ‡.

From the banks of the Ganges, he proceeded to the north-west, along the foot of the Sewalic mountains, by Meliapour, Jallindar, and Jummoo, to the frontiers of Cashmere : and from Cashmere, across the mountainous and desert country of the Kakares § or Gehlers, to the Indus, which he crossed at the same place as before, and in the same manner ; and returned to Samarcand by way of Bannou, Nagaz, Kermudge, Cabul, Bacalan, and Termed.

* Quintus Curtius.

† Batnir is represented as a very strong place, and yet Timur is said to have taken only a body of horse with him (and indeed the extraordinary length of one of his marches seems to prove it). Did he reduce the place without artillery ?

‡ At the time of Timur's conquest (1398) the British nation had scarcely been announced to the people of Hindoostan ; nor was it till 200 years afterwards, that they found their way thither. Who could have believed that the British conquests would meet those of Tamerlane, in a point equidistant from the mouths of the Ganges and Indus, in 1774 ?

§ The Gickers of Dow.

I have pursued Timur's marches, although beyond the limits of the present section; in order that the thread of it might not be broken. I now return to the Panjab.

The bearing and distance of Jummoo from Lahore, and that of Bullauspour from Ludhana; determine the breadth of the Panjab country, north-eastward. Jummoo is given in the Persian map at 50 cossees from Lahore, north-easterly; and this I have followed, as the best authority. Col. Murray's map gives 54 cossees, nearly north; but this bearing is disproved by Mr. Forster's observations: for Cashmere lies about N by W, 97 cossees from Jummoo, and is 135 cossees from the bank of the Indus*, 20 miles above Attock; which the interval would not allow, if Cashmere lay to the west of the meridian of Lahore.

Bullauspour, a fort on the Setlege, within the mountains, I have only the authority of the Persian map, and some vague MSS. for: and it is placed in the map 70 G. miles NE from Ludhana. Col. Murray's map gives the distance at 79 miles, in the same direction. The Persian map fills up the space pretty amply, between the Lahore road and the mountains from whence we suppose the Panjab rivers to spring: and had Mr. Forster's journal from the Ganges to Jummoo, through the mountains, been left in England, this part might have been rendered more perfect; for he entered the mountains at Loldong, crossed the Ganges and Jumna rivers within the hills, and then went by Bullauspour to Jummoo.

By the aid of the Persian map, and other MS. maps, (particularly the one furnished by Col. Murray) I have been enabled to give the road from Vizierabad to Yehungfaul, through the Retchna Deabah, with many other positions in and about the Panjab. The road from Jummoo to Beroudge, &c. is from Sherefeddin. Debalpour is known to be on the great road from Delhi to Moulton: and the divisions of the country in the Ayin Acbarce point out its situation,

* By Mr. Forster's journal.

to be far down the Setlege, in the Jallindar Doabah. The few particulars that occur on the west of the Indus are all from D'Anville, except the position of Pishour, which is placed according to Mr. Forster's observations.

Between the Indus, Agimere, Moultan, and the Puddar river, is an extensive desert, in which is situated the fort of Ammercot, or Omircout, the birth place of Acbar, and the retreat of Khodaiar *. I think it improbable that ever we shall have any geographical knowledge of the inland parts, between the Puddar and Indus, more than the very vague information contained in the Indian histories. The river Puddar, from the length of its course, promises to be navigable; and, probably, it is more from the want of useful products on its banks, than from the shallowness of its channel, that it has continued so long unexplored by Europeans.

The geography of the Panjab country, as being, comparatively, of little consideration in a map of such extent, has been detailed much beyond its seeming importance. The reason is, that we are not likely, as far as I can judge, for a great length of time, if ever, to be possessed of any better materials than those I have exhibited; indifferent as they may be, in many instances: and therefore I consider it as the finishing stroke to the whole matter, for some time to come. And if any good materials do cast up, such as the latitudes and longitudes of some principal points, or some measured routes, I shall, I flatter myself, have prepared the ground for the erection of a fabric of a better construction. Upon a reconsideration of the question concerning the length of the Panjab from Ludhana to Attock, I think something might be added to the present dimensions, perhaps 4 or 5 miles: but it is a matter of small importance, where all the distances are estimated. The Panjab country being the frontier province towards Tartary, and the northern parts of Persia, from whence have sprung the conquerors of Hindoostan in

* Sir William Jones's Nadir Shah.

every age, Alexander alone excepted, it follows, that their route to the interior parts of the country, must have led through it. Of all these conquerors, as far as I can learn, the routes of Alexander, Timur (or Tamerlane) and Nadir Shah, are the only ones that have their particulars on record *. Timur's route I have already given; as it was interwoven so closely with the geographical construction; and towards which it furnished a considerable proportion of materials. And Nadir Shah's route was the ordinary one, by Attock and Lahore; and, I apprehend, he returned the same way; so that it furnishes no matter for this work.

The particulars of the marches of the late Acmet Abdalla, (King of Candahar) during his frequent visits to Delhi, in the present age, have not come to my knowledge. Alexander's route then, is the only one that remains to be discussed; and although last in point of order, here; is considered as the first as it respects history, and the gratification of popular curiosity.

I take it for granted, that Alexander crossed the Indus † at or near the place where the city of Attock now stands; because first, it appears to have been in all ages, the pass on the Indus, leading from the countries of Cabul and Candahar into India: and this is strongly indicated by the circumstance of Acbar's building the fortress of Attock, to command it. Mr. Fraser, in his history of Nadir Shah, says, "there is but one place where an army can conveniently be transported, the stream being so rapid in most parts. There is a castle commanding that passage, called the castle of Attock." Attock then, must stand on or near the site of the Taxila ‡ of Alexander. And secondly, as soon as Alexander

* Turmechirin Cawn, a descendant of Gengis, or Zingis Cawn, made an irruption into Hindoostan about the year 1240; but the particulars of his route are wanting. Sherefeddin mentions, in one place, that he crossed the Jenaub at Toulomba; and in another, that he besieged the city of Merat in the Dooab. But Ferishta confines the exploits of this descendant of Zingis (for his name is not mentioned) to the Panjab country.

† About 327 years before Christ, according to Usher: and in the month of May.

‡ See the notes, page 51. Taxila must necessarily have been very near the Indus, to allow of its being 120 miles from the Hydaspes (or Chelum). See Pliny's Indian itinerary, Book VI.

had crossed over to the east side, Ambisares, King of the Indian mountaineers (the Gehkers or Kakares) sent ambassadors with presents to him. The Prince of the same country made his submissions to Tamerlane, and in the same place, in 1398, (see page 86). From Taxila, as his intention appears to have been to penetrate by the shortest way to the Ganges, he would proceed by the ordinary road to that part of the bank of the Hydaspes (Behut or Chelum) where the fortress of Rotas now stands; and here he put into execution his stratagem for crossing the river, while the opposite shore was possessed by Porus. After crossing the Acesines (Jenab) and Hydraotes (Rauvee) which latter he may be supposed to cross near the place where Lahore now stands, he appears to be drawn out of the direct route towards the Ganges, to attack the city of Sangala, most probably lying between Lahore and Moultan; but we are left in uncertainty as to its position, by Alexander's historians, otherwise than by circumstances, and detached facts. The name Sangala, occurs only in Arrian: and is said to have been a city of great strength and importance, in the country of the Cathei. Diodorus Siculus calls the same people *Catberi*, or *Katberi*; and these may very easily be recognized under the name of *Catry*, in Thevenot; that is to say, the *Kuttry* tribe, or Rajpoots. Thevenot speaking of the people of Moultan, says, "there is a tribe of Gentiles (i. e. Gentoos or "Hindoos) here, called *Catty*, or Rajpoots: and this is properly "their country, from whence they spread over all the Indies." Diodorus Siculus marks them by the custom of their women burning themselves alive, on the funeral piles of their husbands; which is indeed a custom among them; as well as some other Hindoo tribes, at this day. Now we find by Arrian, that the Cathei were confederated with the Malli and Oxydracæ; that is, the people of Moultan and Outch, and which lay to the south-west of the place where Alexander might be supposed to cross the Hydraotes (or Rauvee) in his way into India. (That the Malli were the people of the present Moultan, we can have no doubt, if we attend

to the voyage of Alexander down the Hydaspes, hereafter). I find no difficulty therefore, in determining the position of Sangala to be to the S W of Lahore. As to the distance, Alexander reached it the third day after crossing the Hydraotes; and we cannot allow less than 48 road miles, for these 3 marches; or 36 G. miles in horizontal distance. Had Alexander's route been S E towards the Ganges, the above distance would have brought him within 6 miles of the Hyphasis (the modern Beyah) and Arrian says not a word about that river, until Alexander had returned to Sangala from the pursuit of the fugitives, and again set forward on his march. No idea is given either in Arrian, Diodorus, or Quintus Curtius, of the distance between Sangala* and the Hyphasis; but it may be collected by Arrian's manner of speaking, that they were not near each other. Diodorus places the kingdoms of Sophites and of Phigeus between the Catheri and the Hyphasis; whence we may infer a considerable space between them. If I am right in my conjecture concerning the position of Sangala, the Hyphasis (Beyah) must be about 40 miles from it, eastward; and let Sangala be where it will, the river Beyah answers to the Hyphasis or Hypasis (called anciently, by the natives, Beypashta) and Alexander's altars may probably have been erected between Aurungabad and the conflux of the Beyah and Setlege, at Firosepour; Pliny says on the further, or eastern side of the river. One cannot help regretting the extreme brevity of this part of Arrian's narration, with respect to the detail of Alexander's marches, between Sangala and the Hyphasis, and back again to the Hydaspes; which is dispatched too rapidly for a geographer to profit by. Diodorus and Curtius are not more explicit; nor indeed, if they had, are they to be much depended on, in this respect, for they have confounded the Hydaspes (Chelum) with the Acesines (Jenab) in their account of Alexander's voyage. But, I think, whoever takes the trouble to compare Arrian's ac-

* Although Diodorus and Curtius do not give the name Sangala, yet the city meant by Arrian, under that name, is pointedly described by them.

count, both of the land marches, and the voyage down the rivers, with the geography of the Panjab; will find the ancient Hydaspes, in the modern Chelum, the first river beyond the Indus; and successively, the Acesines in the Jenaub or Chunaub; the Hydraotes in the Rauvee; and the Hyphasis, in the Beyah: though I will not contend for the exact position of the altars, whether they might be above the conflux of the Beyah, or below it: only the ancient name *Beypaspha*, appears more likely to have been the origin of the Greek Hyphasis, Hypasis or Huphasis; than *Sbetooder*, which was the ancient name of the Setlege.

There is a flat contradiction between Arrian and Diodorus (and Curtius who follows the latter) regarding the quality of the country on the east of the Hyphasis; the former describing it as a flourishing and well inhabited country; the latter say there is an extensive desert between it and the Ganges. Arrian's account suits the upper part of the river, and Diodorus's, the lower part; for there is certainly a desert, as has been before observed, between the Panjab and Batnir.

We are left to suppose that Alexander, after the determination of his army to proceed no further, returned to the Hydaspes, by the route he came, bating the ground he lost in marching after the Catheri: and finding his cities of Nicee and Bucephalia completed; and a fleet, or part of one, built out of the timber procured from the neighbouring mountains, named by them *Emodus* and *Himaus* or *Imaus*, he proceeded down the Hydaspes with his fleet, while the greater part of the army marched by land.

Here it may be proper to observe, that Arrian does not say from whence the timber came, but leaves us to suppose that it came from the forests nearest to the river, and enough is known of the nature of the country, to convince us that the forests bordering on the foot of the Cashmirian hills were very near to the river Hydaspes. The mountains *Emodus* and *Imaus* indeed, were at a very great distance, and could be only in sight to the N E; since they are
 conti-

continuation of the great ridge called *Hindo-Ko*, or the Indian Caucasus; and which are near the head of the Indus, and run through the heart of Thibet. I suspect Emodus and Imaus to be different readings of the same name; and Imaus or Himaus, we have every reasonable proof of being derived from the Sanscrit word *Himmaleh*, signifying snowy. That vast ridge bears the same name at present; and Pliny knew the circumstance well*.

To return to Alexander. He sailed from his first place of embarkation in the Hydaspes, about the middle of November N. S. 327 years before Christ, (according to Usher) having of course, been in the field the whole rainy season; for he crossed the Indus in May. In five days, the fleet arrived at the conflux of the Hydaspes and Acesines (Chelum and Jenaub) the identity of which, is most pointedly marked, by the nature of the banks: for these large rivers, pent up within strait rocky beds, form a rapid and troubled stream at their confluence; and this appearance dismayed the whole fleet, and proved fatal to some of the large ships. A similar description of this confluence is given in Sherefeddin's life of Timur, who crossed a little below it in 1398 nearly at the same season, over a bridge of boats. At this place, Philip, who had led a division of the army along the banks of the Acesines, (whose course is not far from that of the Hydaspes, and gradually approaches it, until they meet) here joined the grand army, and was ferried over the Acesines. We may observe from this, and from Craterus and Hephæstion being detached with the other two divisions along the opposite banks of the Hydaspes, that Alexander might be said almost to sweep the whole country. He now approached the confines of the Malli, and set out on his *first* expedition with a detachment, against the people of the country, to prevent their giving assistance to that nation; but the particulars of his march are not recorded. He returned again to the fleet and army at the conflux of the Hydaspes;

* Imaus, incolarum lingua nivofam significante.. Pliny Book VI.

and from thence dispatched the fleet to the next place of rendezvous, at the conflux of the Hydraotes (Rauvée) with the Acesines (Jenau) ; for so the confluent streams of the Hydaspes and Acesines were named, the Acesines being the largest; and as the Hydaspes is said to be 20 stades in width the whole way, the other must have been an immense river. The army was divided into four divisions, three of which marched at a considerable distance from each other, along or near the course of the river; the fourth, Alexander took the command of himself, and marched inland from the river, to attack the Malli on that side; in order to drive the fugitives towards the forks of the rivers, where they might be intercepted by some of the other divisions. The line of direction of his march must have been south or south-eastward. On the second morning he took a strong city; and Perdiccas, another; and after a second long night march, arrived at the Hydraotes (Rauvée): perhaps, we may allow for the day, and two night marches, 40 road miles; or 30 G. miles of horizontal distance*. He fell in with the river at some considerable distance above the conflux (the appointed rendezvous for the fleet) as appears by what followed: and after crossing it, took two other towns†, and then proceeded to the capital city of the Malli; after dispatching Pithon back to the river side, to intercept the fugitives. This capital of the Malli, must not be mistaken for the modern Moultan; which is at least 40 miles by land, below the conflux of the Hydraotes; or two days voyage for a boat going with the stream‡: but the ancient capital in question, was above the conflux, and near the Hydraotes (Rauvée) by the garrison's leaving it, and retiring to the opposite (north) side of the river. Alexander recrosses the river, after them, but finding

* The Ayin Acbaree reckons 27 cosies, or 51 B. miles, between the two confluences of the Hydaspes and Hydraotes with the Acesines; but this account includes the windings of the channel.

† One of these was a town of Brachmans or Bramins. Some of them burnt themselves, together with their houses; and few came alive into the enemies hands. This mode of conduct has been practised in our own times. See Orme's *Indoistan*, Vol. II. p. 255.

‡ Itinerary 1662.

them too strong to be attacked with the party he brought with him, and waiting for a reinforcement, the enemy had time to retire into another fortified city, *not far off*. This *nameless* city, is the place where Alexander was wounded, and in such imminent danger; and not in the capital of the Malli, nor among the *Oxydraca* (Outch) which is on the opposite side of the Acesines (Jenaub) and near its confluence with the Indus. Indeed Arrian is particular in pointing out this error [of Diodorus]. As to the distance of this city above the conflux, we may collect that it could not be very far, both by reason of the quick communication between Alexander, and the camp and fleet; and by the ground he had marched over, after leaving the first conflux. I am inclined to place it about 10 G. miles above the conflux (of the Jenaub and Rauvee) and a few miles from the north bank of the latter; and the capital of the Malli on the opposite side, and not far from the river bank; so that they will be somewhat below the present town of Toulomba, a famous pass on the Rauvee, between Lahore and Moultan.

When Alexander was sufficiently recovered from the effects of his wound, he was embarked on the *Hydraotes*, and carried *down the stream*, to his fleet, which appears to have been brought into the Hydraotes; for we learn that he passed the conflux after he joined the fleet*.

We learn also, from the same author, that the Acesines preserves its name until it is lost in the Indus; although it receives the Hydaspes and Hydraotes: the historian of Timur, in like manner, gives the name of Jenaub to the confluent waters of the Chelum and Jenaub: this alone, however, does not prove that it was the largest river; for we have many examples, in modern geography, at least, where the adjunct river, though the smallest, gives its name to the confluent waters. It is worthy of remark, that Arrian, as it appears, not knowing what became of the Hyphasis (Beyah)

* Arrian.

does not say that Alexander saw the mouth of it, as he did those of the Acesines and Hydraotes; but only informs us that it fell into the Acesines. And indeed, the truth is, that these rivers under the modern names of Beyah and Setlege, do not join the Jenaub; but after uniting their streams, fall into the Indus, a great way farther down. It is certain that the courses of rivers, even of the largest, do alter so much, in time, that what Arrian says, might have been the case; but there is no necessity for supposing it.

Arrian, as well as Sheresfeddin, informs us that the lower part of the Panjab towards Moultan, is flat and marshy, and inundated [like Bengal] by the periodical rains, which fall between the months of May and October. As a proof of it, Alexander was once obliged to break up his camp, on the Acesines (*Jenaub*), and retire to the higher grounds.

From the conflux of the Acesines with the Indus, we accompany Alexander successively to the territories of the Sogdi, Musicani, Oxycani, Sindomanni, and Patalans. The Oxydrace, who had submitted by their ambassadors, were left unmolested. Bhakor answers nearest to the position and description of the country of the Musicani, which was next to the Sogdi, and the most powerful on that part of the Indus: and the Oxycani, the next in order, to Hajycan; a circar, or division of Sindy. In Sindomanni, we may recognise the country of Sindy, or that thro' which the river Sinde flows, in the lower part of its course: and Pattala, has ever been referred to the Delta of the Indus. But so vast a change of names, or rather so vast a change in the manner of writing them*, forbids the building of any hypotheses, on the similarity of ancient and

* A comparison of the modern names with the ancient, in many parts of Asia, leads me to conclude, that had they been faithfully written by the Greeks, much less difference would be found between them, than we now experience: and I am inclined to think, that the names of the rivers, in particular, are scarcely changed since the time of the Greeks. Vanity has no share in new naming of rivers.

modern names of places; except in cases, where the locality is equally evident.

Having now conducted Alexander across the Panjab, and down the Indus, to the head of its *delta*, it may not be amiss to observe, that the state of the country through which he passed, was very different from what we should have conceived, who have been in the habit of considering Hindoostan, as being governed by one monarch; or even as divided into several large kingdoms. In the Panjab country, in an extent less than is comprised within one of the *soubahs*; or grand divisions of the Mogul Empire, we find no less than seven nations; and along the lower parts of the Indus, many more. Even in the Panjab, where Alexander waged a whole campaign and part of another, there was nothing of that kind of concert appeared, which must have taken place between the governors of provinces, had they been under one head: but in general, each acting separately, for himself. The Malli, Catheri, and Oxydracæ, we are told, leagued together for their mutual defence; and this proves that they were separate governments. It is curious, that the same cause that facilitated Alexander's conquests in India, should also have given them the degree of celebrity that has ever accompanied them; that is to say, their subdivision into a number of small states: and ordinary readers, either not regarding, or not comprehending their extent and consequence, have considered them as kingdoms. The conquest of the Panjab and Sindy, would, with such an army*, be no very great matter in our times, although united: and yet this conquest is considered as a brilliant part of Alexander's history: the truth is, the romantic traveller is blended with the adventurous soldier; and the feelings of the reader, are often applied to, than his judgment.

But although the western part of Hindoostan was in this state, there existed beyond, or rather towards the Ganges, a powerful

* Alexander had 120,000 men, and 100 elephants. Arrian.

kingdom, as appears by the state Megasthenes found it in, when he resided in quality of ambassador from Seleucus Nicator, not many years after, at Palibothra, the capital of the Prasii *. The Prasians probably owed to the discontents that prevailed in Alexander's army, their escape from a foreign conquest, at that period.

Alexander arrived at Pattala about the middle of August (Before Christ 326 years) and after he had made proper arrangements for the safety and conveniency of his fleet and army; and had viewed also the two principal mouths of the Indus, in which he experienced some degree of surprise, if not of terror, from the bore, or sudden influx of the tide †; he departed by land for Sufa, leaving Nearchus with the fleet to follow, as soon as the etesian winds ‡ should cease. He had been more than 9 months in sailing down the Hydaspes, and Indus. He crossed the Hydaspes about the Summer solstice in the preceding year, and of course had been in the field, or in some kind of warfare, during two rainy seasons: we are told however, by the author of the *Ayin Achbaree*, that but little rain falls in the lower parts of Moultan; that is, the part bordering on the Indus. Nearchus sailed about the middle of October § with the N E monsoon; conducting, according to Dr. Gillies, in his elegant history of Greece, “the first European fleet which navigated the Indian seas.” By the journal of this voyage, published by Arrian, it appears that the fleet sailed out of the western branch, by the distance between the mouth of the Indus and the river Arabius, which was only 1000 stadia; for Arrian gives the breadth of the Delta at 1800 stadia, along the sea coast ||. Arrian takes notice that when Nearchus stood out to sea, on the coast of India, he found either no shadow at noon; or else the shadow,

* See the Introduction.

† Ibid.

‡ The Etesian winds blew from the N E, in the Mediterranean, in the months of July and August; and the ancients thought proper to apply the same term to the periodical winds of the same season in the Indian seas, although they blew from the opposite quarter.

§ The first of October O. S. according to Usher.

|| Pliny gives it 230 miles, so that he reckoned nearly 8 stades to one of his miles.

if any, was projected southward. This, however, could not possibly happen, because Alexander did not arrive till after the summer solstice, nor till August. And yet Arrian took this from Nearchus's journal: but whoever examines the geography of it, will find that he could never be within a degree of the tropic, allowing him to have sailed at a reasonable distance from the shore.

It may appear extraordinary that Alexander should, in the course of a few months, prepare so vast a fleet for his voyage down the Indus; especially as it is said to be the work of his army. But the truth is, that the Panjab country, like that of Bengal, is full of navigable rivers; which, communicating with the Indus, form an uninterrupted navigation from Cashmere to Tatta: and, no doubt, abounded with boats and vessels ready constructed to the conqueror's hands. That he built some vessels of war, and others of certain descriptions that might be wanted, I entertain no doubt; but transport and provision vessels, I doubt not, were to be collected to any number. There were about 80 triremes; and the whole number of embarkations were near 2000. I think it probable, too, that the vessels in which Nearchus performed his coasting voyage to the gulf of Persia, were found in the Indus. Vessels of 180 tons burthen are sometimes used in the Ganges; and those of 100 not unfrequently.

*Account of the MAP of the Countries, lying between the River INDUS,
and the CASPIAN SEA.*

HAVING so often had occasion to mention the countries of Persia and Tartary, contiguous to the north-west parts of India; it will be for the reader's convenience to have a small map of those parts, inserted in this work; by which the relative positions of the

COUNTRIES

*Some of the names of the Nations of the
Ganges and the Carpians Sea*

Legend

Mountains are marked with a double line
Rivers are marked with a single line
Lakes are marked with a wavy line
Cities are marked with a circle
Fortresses are marked with a square
Islands are marked with a small circle



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frontier provinces of both countries, will be shewn, and the heads of the Indus, Ganges, and Oxus, brought into one point of view. It will also serve to convey an idea of the route pursued by Mr. Forster *, from the banks of the Ganges, to the Caspian sea; and which has never been travelled by any European in modern times; at least no account of it is to be found on public record.

The positions of Jummoo, Attock, Behnbur (or Bember) and Pishour, are given in the large map of India; therefore, I shall begin with an account of those of Cashmere, Cabul and Candahar.

From Jummoo, Mr. Forster travelled to the capital city of Cashmere, which he reckons 97 cosses by the road, and the general

* The story of this gentleman's travels is very curious. He proceeded by land from Bengal to the Caspian Sea, and from thence by the ordinary route on the river Volga, &c. to Petersburg; in the years 1785 and 1786. It was necessary, from a regard to safety, to avoid the country of the Samoy; that is, Laponia: he accordingly crossed the Ganges and Jumo rivers within the mountains, and proceeded to Cashmere by the road of Jummoo. He visited this celebrated country, I presume, through motives of curiosity, as it lay so far out of his way. From thence, crossing the Indus, about 20 miles short Attock, he proceeded to Cabul, the capital city of Timur Shah, King of Candahar; or more commonly known by the name of *Achak*. He meant to have proceeded from thence, through the country of Buchara or Transoxania; but finding it too hazardous, he pursued the accustomed route of the caravan to Candahar. From this place, which is supposed with reason to be the *Parysatis* Alexandria, his route was nearly in a straight line through Herat, to the south extremity of the Ganges; across the modern provinces of Seistan, Kowistan, and Alexanderand; and which were known to the ancients under the names of *Parysatis*, *Arak*, or *(Araxes)* *Parthia*, and *Taraps*. It will be perceived that (as far as a comparison can be made) Mr. Forster traced back a considerable part of the route pursued by Alexander, when he pursued it to the south. As he travelled in the disguise of an Arab, and in the company of Arabs; through a vast extent of Mohammedan country, where the religious prejudices of the natives are nearly equalled by their political jealousy of all sorts of foreigners; we may pronounce the man who could perform such a task without suspicion, to possess great presence of mind, and no less discretion; added to an uncommon share of observation of manners, and facility of attaining languages. Detection had been worse than death: and he was subject to constant suspicion from his fellow-travellers, who were not in the secret. I hope he means to publish his observations on the manners, government, and present state of that part of Persia, of which we know the least; as well as of Candahar, a subject yet more interesting to the philosopher and naturalist. It may seem to shew the extensive commercial intercourse, and trade in merchandise, and the adjoining country (once dependant on it) notwithstanding the variety of governments it contains, and the imperfect state of the greater part of them; from the hills of Kookanistan which Mr. Forster examined in Candahar, were negotiable at Cabul, 12 or 18 hundred miles distant, and the whole of a mountain nearly unconnected with, and possibly devoid of political features, so that to reach the hills onghat. From the time he left the 1st British Station in 1786, to the Caspian, in which he employed more a twelvemonth, and travelled 2000 English miles; he was contented in every part of the ordinary comforts, and accommodations, which are enjoyed by the lower class of people, in European countries; sleeping in the open air, even in rainy and snowy weather; and contenting himself with the ordinary food and clothing of the country he passed through. Indeed it was barely possible to carry with him the means of procuring comforts, without hazarding his safety; as he was to long on the road.

bearing,

bearing, at N by W. The last 19 coffes of the way, were by water, following the course of the Chelum or Behut river (he writes it *Jalum*) which, with its several branches, traverses the valley of Cashmere, and takes nearly a westerly direction, in this place. This being the case, only 78 coffes are to be reckoned in a northwardly direction, from Jummoo to Islamabad, the place of embarkation: and as the hilly (not to say mountainous) nature of the country requires at least 45 coffes to make a degree, the position of the capital of Cashmere may be reckoned 117 G. miles N by W from Jummoo: or in lat. $33^{\circ} 49'$, lon. $73^{\circ} 31'$. The Persian tables give its latitude at 35° : but not only the distance from Jummoo, but its bearing from Pishour, plainly demonstrates that it ought not to be higher than $33^{\circ} 49'$, or at most 34° : provided Lahore be in 31° . The capital of Cashmere has the same name as the province, according to Mr. Forster, and M. Bernier: but the Ayin Acharae, at an earlier period, names it Sirinagur. It is a large city, and built on the sides of the river Chelum, which has a remarkable smooth current throughout the whole valley, according to Mr. Forster) and this proves the remarkable flatness of the country; as the body of water is very large.

The valley or country of Cashmere, is celebrated throughout upper Asia for its romantic beauties, for the fertility of its soil, and for the temperate of its atmosphere. All these particulars may be accounted for, when it is considered, that it is an elevated and extensive valley, surrounded by steep mountains, that tower above the regions of snow; and that its soil is composed of the mud deposited by a capital river, which originally formed its waters into a lake, ~~the~~ covered the whole valley; until it opened itself a passage through the mountains, and left this fertilized valley, an ample field to human industry, and to the accommodation of a happy race: for such the ancient inhabitants of Cashmere, undoubtedly were.

Although

Although this account has no living testimony to support it, yet history and tradition, and what is yet stronger, appearances, have impressed a conviction of its truth on the minds of all those who have visited the scene, and contemplated the different parts of it. Different authors vary in their accounts of the extent of the valley. The Ayin Acharee reckons *Cashmere* 120 coosies long, and from 10 to 15 broad; but I imagine that some other districts under its government, are included. Bernier, who accompanied Aurengzebe thither, in 1664, says it is 30 leagues long, and 10 or 12 broad. And Mr. Forster, who I dare say was accurate in his enquiries and observations, says it is 80 miles long, and 40 in breadth; and of an oval form.

The author of the *Ayin Acharee* dwells with rapture on the beauties of *Cashmere*; whence we may conclude that it was a favourite subject with his master *Achar*, who had visited it three times; before *Abul Fazil* wrote. Other Emperors of Hindoostan visited it also, and seemed to forget the cares of government, during their residence in *the happy valley*. It appears that the periodical rains, which almost deluge the rest of India, are shut out of *Cashmere* by the height of the mountains; so that only light showers fall there: these however, are in abundance enough to feed some thousands of cascades, which are precipitated into the valley, from every part of the stupendous and romantic bulwark that encircles it. The soil is the richest that can be conceived; and its productions those of the temperate zone. A vast number of streams and rivers from all quarters of the valley, bring their tribute to the *Chelum*, the parent of the soil; which is a large navigable river, and in which we recognise the famous *Hydaspes* of Alexander, who crossed it about 100 miles below the valley. Many small lakes are spread over the surface, and some of them contain floating islands. In a word, the scenery is beautifully picturesque; and a part of the romantic circle of mountains, makes up a portion of every landscape. The pardonable superstition of the sequestered inhabitants, has mul-

tiplied the places of worship of Mahadeo, of Beschau, and of Brama. All Cashmere is holy land; and miraculous fountains abound. One dreadful evil they are constantly subject to, namely, earthquakes; and to guard against their most terrible effects, all the houses are built of wood; of which there is no want.

Among other curious manufactures, with which Cashmere abounds, is that of the shawls; which are distributed over all the western and southern Asia. We learn from M. Volney, that they even make a part of the dress of the Egyptian Mamlouks; and at present (as if to exhibit the most striking contrast in the classes of wearers) they are worn by the English ladies. There remains no doubt, but that the delicate wool of which they are made, is the produce of a species of goat, either of that country, or of the adjoining one of Thibet. Notwithstanding the present extensive demand for shawls, the manufacture is declined to one fourth of the former quantity; which may be easily referred to the decline of the Persian and Hindoostanic empires. Here are bred a species of sheep, called *Hundoo*, which like those of Peru, are employed in carrying burthens. The annual publick revenue of Cashmere, in the time of Aurengzebe, appears to have been only about 35,000*l*. From what has been said above, it was, no doubt, a favoured province.

The Cashmirians have a language of their own, said to be anterior to the Sanscrit. And it would appear that they had also a religion of their own, different from that of the Hindoos. Abul Fazil says, "the most respectable people of this country, are the Reyshes, who although they do not suffer themselves to be fettered by traditions, are doubtless true worshippers of God." Nothing can exceed the liberality of mind both of Abul Fazil, and of his master, the great Achar: but the former appears to have caught some of the enthusiasm of *the valley*, by his descriptions of some of the holy places in it. To sum up the account of Cashmere, in the words of the same author, "It is a garden in perpetual spring."

So far am I from doubting the tradition respecting the existence of the lake that covered Cashmere; that appearances alone would serve to convince me, without either the tradition, or the history. If it a mere natural effect; and such I apprehend must be the economy of nature, in every case where the waters of a river are inclosed in any part of their course, by elevated lands. The first consequence of this stoppage, is, of course, the conversion of the inclosed lands, into a lake; and if this happens near the fountains of the river, and the ground is solid, it is likely to remain a lake for ever; the river not having force enough in its infant state to work itself a passage through the mountains. Hence it is that more lakes are found near the sources of rivers, than in the lower parts of their course. If the river be inclosed after it has gained a great accession of water, and of course, strength, it will indeed at first form a lake as before; but in time, the place at which it runs over, will be gradually fretted away, as in the case of the Chelum abovementioned. The Euphrates, in like manner, opens itself a passage through Mount *Taurus*; and the Ganges through Mount *Imaus*: and even though the base of the mountain be of the firmest texture, it will give way to the incessant friction, through a course of ages: for we know not but that it may have been an operation, of some thousand years. In the case of the Ganges, which passes THROUGH Mount *Imaus*, it may be supposed that the lower strata were softer than the upper; for the upper still remain, to a vast height. In that of the Chelum, the lake appears to have existed long enough to deposit a vast depth of soil, before it dispersed. The *Cashmirian* history names the lake *SUTRY-SIR*: and adds, that *Kushup* led a colony of Bramins to inhabit the valley, after the waters had subsided. Cashmere is the frontier province of Hindoostan, towards Tartary and Thibet: it having little Thibet on the north, and great Thibet on the east; and Cashgur on the N W.

From Cashmere, Mr. Forster went by a very circuitous route, to Cabul, the barbarous state of the people who inhabit the shores

of the Indus towards its source, making this precaution necessary. The countries in question are those of Pehkely or Puckely, Sowhad, and Bijore, the scene of Alexander's warfare on the west of the Indus; all of which were subjected to regular authority during the long and vigorous reign of Acbar. We are told by the Ayin Achahee, that several of the streams that form the head of the Indus, yeild gold dust: and this accounts for the circumstance of the Indian tribute being paid in gold to Darius Hystaspes; according to HERODOTUS. (Book III.). The sum indeed seems too great, in proportion to what other provinces paid: but as the gold of the river *Pactolus* has been exhausted, so may that of the Kishengonga, in Puckley, be diminished. Pehkely, I take to be the *Pactya* of Herodotus, Book IV. (as well as the *Practaria* of Arrian) from whence Scylax set out to explore the course of the Indus, 'under the orders of the same Darius': for it lies towards the upper part the navigable course of that river.

The first part of Mr. Forster's route from Cashmere, was down the course of the Chelum, or Behat, which has a south or S S W course, from the capital of Cashmere, for about 14 cooses; at which point he disembarked, and struck to the westward, towards Muzifferabad; the capital town of a chief, who styles himself Sultan of a district of the same name, bordering on the south-west of Cashmere. This capital is reckoned 71 cooses from Cashmere city, in a W by S direction. The country being mountainous from the confines of Cashmere, together with the obliquity of the course of the river; not more than 73 or 74 G. miles can be allowed on this course. The frontier of Cashmere was passed at 54 cooses from the landing place, on the bank of the Chelum.

At Bazaar, 64 cooses in a S W by S direction from Muzifferabad, Mr. Forster crossed the Indus. This place is about 20 miles to the N N E of Attock, and, together with Jummop, serves to correct the position of Cashmere, in respect of Attock and Lahore. I have allowed the 64 cooses to produce 80 G. miles; and it accords, as nearly

nearly as such a rough kind of computation, can be expected to do. The greatest part of the way from Muzifferabad, was mountainous, and the country subject to petty Princes of the Patan race. Mr. Forster entered the country of Timur Shah Abdalla, at Hyderabad, a town about 8 miles to the east of the Indus.

The Indus (or Sindé) was crossed by Mr. Forster, the 10th of July. He remarks, that no rain had then fallen in that neighbourhood: but we know that the periodical rains must have commenced in the northern mountains, near three months before, and of course must have swelled the river very considerably; for Mr. Forster judged the breadth of the stream to be three quarters of a mile. It was also very rapid, and turbulent, although not agitated by any wind. He observed also, that the water was extremely cold, and that a great deal of black sand was suspended in it. Nil-ab, or the blue river, is a name sometimes applied to the Indus: possibly from the fancied colour of its waters, when mixed with this sand. The Ganges and Burrampooter rivers, on the contrary, when swollen, are of a pale yellow, lightly tinged with red; being then saturated with mud. I doubt not but that the Indus assumes the same colour, after the rains have fallen into the level countries, and washed a portion of the soil into the river.

I cannot find out where the springs of this celebrated river, are. Unquestionably, they are far more remote than the sides of the mountains, which separate Hindoostan from Tartary; and where both the ancient and modern Europeans have agreed to place them: for as these mountains are not in a higher parallel than 35° , at most; the Indus could have no more than 150 G. miles to run (reckoning in a strait line) before it reached the place where Mr. Forster crossed it: and we have no example of any river having acquired such a volume of water, in so early a part of its course, as this supposition would make it. All the Panjab rivers; and most of the western rivers; that is, those of Candahar and Cabul, fall in below this point. The Ayin Acharee says, "the Sind, accord-
ing

“ing to some, rises between Cashmere and Cashgur, while others “place its source in Khatai.” By Khatai, is strictly meant CHINA; but the term is likewise extended to Tartary, and other adjacent countries; of which Cashgur may be one. This country commences on the north and north-east of Cashmere, and extends northward to the fortieth degree of latitude; and eastward to the chain of mountains, which, in the idea of the ancients, separated the two Scythias: in effect, it was that branch of Mount *Imaus* that extended in a direction nearly from north to south, and terminated on the eastern branch of the same mountains, near the heads of the Ganges. The Indus may then possibly spring from the west side of this ridge of Imaus; and this would allow a length of course, equal to what the Ganges takes, before it enters Hindoostan. A great part of the space allotted by the maps to Cashgur, is known to be a sandy desert: it is possible that the black sand seen in the river by Mr. Forster, is rolled down by the torrents, from that desert. I cannot help observing that on the east side of the northern Imaus, the name *Ghata* appears as the name of a nation*; as that of *Cassia* does in the position assigned to the modern city of Cashgur. Khatai, as I have said before, is applied rather in a lax sense by the people of Hindoostan. CHEEN, or MAHA-CHEEN, is their proper name for the empire of China; as SINÆ appears to have been among the Romans. Khatai answers better to Tartary, and its different members, such as Thibet, &c. Probably Khatai, and Scythia have the same derivation; as they appear to have been applied in certain instances, to the same tracts of country.

Pishour or Peshore, is the next place of note that lay in Mr. Forster's route. It is a considerable city, and is situated on the great road leading from Attock to Cabul; being 25 coiles from Attock, and 29 in a W by S direction from Bazaar, whence its latitude stands in the map at $32^{\circ} 44'$; and lon. $69^{\circ} 34'$. From this

* In Ptolemy.

place to Cabul, Mr. Forster reckons 90 cossees; Col. Popliam's MS. 108; and Tavernier 100. I have preferred Mr. Forster's account of the distance; but have altered his bearing to NNW, which accords best with other circumstances: and allowing 45 cossees to a degree, Cabul, by this account, will be in lat. $34^{\circ} 36'$; lon. $68^{\circ} 58'$. By the Persian tables, its latitude is $34^{\circ} 30'$ and its lon. $4^{\circ} 42'$ west from Lahore: but the construction allows only $3^{\circ} 47'$. These bearings, taken in a great measure, at a venture, together with the computed distances on each; can only be admitted in geographical determinations, where there are no fixed points at the extremity of the series, through the necessity of the case: however, they may be estimated, as at least equal in point of authority, to the Persian tables of longitudes, in which Cabul is placed $104^{\circ} 40'$ to the east of the Fortunate Islands.

The city of Cabul, the present capital of Timur Shah, King of Candahar, is situated near the foot of the Indian *Caucasus*, or *Hindoo-Ko*; and not far from the source of the Attock river, which passes very near, or under it. Its situation is spoken of in terms of rapture by the Indian historians; it being no less romantic, than pleasant: enjoying a delightful air, and having within its reach, the fruits and other products both of the temperate, and the torrid zone. In a political light, it is considered as the gate of India towards Tartary: as Candahar holds the same place, with respect to Persia.

The Ayin Acbaree is very full, in its description of the province of Cabul; as well as those of Candahar and Cathmere. Cabul has an extent given to it, of 150 cossees from the Indus (at Attock city, probably) to Hindoo-Ko; and 100, from the river Chaghanserai, the eastern boundary, to Charbagh. These measures may be taken at 200 G. miles, by 134; and appear consistent.

The province of Cabul appears, by every account, to be a country highly diversified: being made up of mountains, covered with eternal snows; hills of moderate height, and easy ascent; rich plains

plains, and stately forests; and these enlivened by innumerable streams of water. It produces every article necessary to human life, together with the most delicate fruits and flowers. It is sometimes named Zabulistan, from Zabul, one of the names of Ghizni: which was the ancient capital of this country, and of which Candahar was then reckoned a part. The mountains of Hindoo, or Hindoo-Ko, separate Cabul from Balk and Badackshan; and are precisely the ridge designed by the ancients, under the name of the Caucasus of India: and the proximity of this ridge to Cabul, occasions the most rapid changes in the temperature of the atmosphere. The Ayin Acbaree, from whence most of these particulars are collected, takes particular notice of the Attock river, which takes its course from north to south (nearly) and fertilizes the lands of Cabul and Ghizni.

Cabul, as well as Candahar, together with some districts on the east of the Indus, are comprised within the extensive dominions of Timur Shah Abdalla; which extend westward to the neighbourhood of the city of Terfihist; including generally Cabul, Candahar, Peishore, Ghizni, Gaur, Seistan (or Sighistan) and Korasan. This tract is not less than 650 B. miles in length, from east to west; but although we know not what the extent may be, breadthwise; yet there is little reason to suppose, that it bears any proportion to the length. It does not differ much from the tract comprised within the ancient kingdom of Ghizni. Timur Shah's Indian subjects are chiefly Afghans; the rest, Persians and Tartars of almost every denomination. His government is said to be mild and equitable; with some degree of relaxation as to military discipline. This, in a government purely military, forbodes dissolution.

The position of Candahar is still more indeterminate, than that of Cabul; as being placed with a reference to the latter, and in the parallel assigned by the Persian tables, which is 33° , or a degree and half to the southward of Cabul. Its longitude cannot be collected from the Ayin Acbaree, because there is a mistake in the figures:

figures: it giving a higher number of degrees than for Cabul; reckoning from the Fortunate Islands. Mr. Forster estimates the bearing of Ghizni (or Gazna) from Cabul, at S or S by W; and the distance 20 ¹/₂ farangs, or 41 cosses: and from Ghizni to Candahar S W, 103 cosses. These give a general bearing of S 33 W, 137 cosses. Col. Popham's MS. gives 122 cosses between Cabul and Candahar, indirect distance; and Tavernier, 110. There appears a wide difference in these accounts: Mr. Forster's bearing from Ghizni, is unquestionably too much southerly, as is proved by the difference of latitude; therefore the distance arising from his compound course, is to be placed out of the question. And Col. Popham's MS. says that the cosses are to be reckoned at a mile and half (British, we may conclude) and then the 122 cosses, produce only 96 Hindostanny cosses; and these, at 42 to a degree, will give 138 G. miles. I have accordingly placed Candahar 138 miles from Cabul, and in lat. 33° , lon. $67^{\circ} 5'$: which is D'Anville's position of it, in his map of Asia. In my map, it stands $5^{\circ} 42'$ west of Lahore; or $1^{\circ} 55'$ west of Cabul. The eastern geographers, according to M. D'Anville, allow 2 degrees between them.

Candahar, while the Persian and Mogul empires were severally undivided, was the frontier city and fortress of Hindoostan towards Persia; and was esteemed the key of the western provinces of the latter; and not unfrequently changed masters. The Ayin Acbaree, classes, as belonging to Candahar, several provinces on the west of it, and which unequivocally belong to Persia: but as the limits of the empire varied with the prowess and abilities of the different Emperors, it may be concluded that Acbar extended them to the utmost. I believe there are no doubts entertained concerning the ancient name of Candahar: which is allowed to be the *Paropamisian* Alexandria; from whence Alexander, directed his march northward, into *Bactria* and *Sogdiana*, that is, the modern countries of Balk, Bucharia, and Samarcand: and returned again to it, previous to his Indian expedition.

The position of Ghizni, the ancient capital of the kingdom of the same name, is totally different from what M. D'Anville supposed. He has placed it in the NW extreme of Cabul: but Mr. Forster found it in the very heart of that province. Geography is, indeed, very bare of particulars through the whole tract between Cashmere and Candahar: although Mr. Forster has contributed so much towards the improvement of it. He has shewn that Cashmere stands nearly a whole degree to the north of the position assigned it, in our best maps: has taught us to distinguish certain branches of the Indus, which before, were either confounded together, or misnamed. In particular, we learn from him, that the river which passes by the city of Cabul, is named the Attock, and joins the Indus in front of the city of Attock; and although the smallest river of the two (for it is not more than 100 yards wide, though deep) yet communicates its name to the other, during a considerable portion of its course.

Although this was the part of India, the first known to Europeans, yet at this day, we know less of it, than of most other parts; nor ought it to excite surprise; for the moderns have visited India, on a very different errand than what the ancients did: ours being purely on the score of maritime trade, until the downfall of the Mogul empire, opened the way to the acquisition of territory: and that in the opposite corner of the empire. I have availed myself of the laborious researches of the celebrated D'Anville, to introduce several places, whose names he has identified on the authority of a Turkish geographer, whose works I am unacquainted with. From M. D'Anville's works also, I have copied the position of the northern mountains, which separate India from the Tartarian provinces, as well as those provinces themselves; having, as I said before, extended the map to Semarcand and Cashgur, in order to shew the relative positions of the places situated near the common frontiers of Persia, India, and Tartary. Those who wish for more particular information, may consult his map of Asia published in

1751; as also his *Eclaircissement**, which accompanied that, and the map of India; the first section of which is particularly curious, and applies directly to this subject. His *Antiquité Géographique de L'Inde*, deserves attention likewise: though I confess I cannot follow Arrian in his detail of Alexander's marches, in the countries bordering on the west of the Indus, for want of such unequivocal marks, as are to be found on the east side of that river, in the courses and confluences of the Panjab rivers. However, by the aid of the *Ayin Acbarie*, several positions in the march of Alexander may be ascertained; as the second volume of that work, under the heads of *Cashmere* and *Cabul*, gives the names, dimensions, and relative positions, of the subdivisions of those countries. I think I can clearly perceive that Alexander never went so far to the north as the city of *Cabul*; and that although his route is generally represented as very circuitous, and even traversing the country from one extreme to the other; yet I apprehend, that on the contrary, it was tolerably straight, from *Alexandria* (or *Candahar*) to the *Indus*, near *Pencelastis*, or *Pehkely*. Let us endeavour to trace his route generally:

Leaving *Alexandria*, he came to the river *Cophenes*†; which, by circumstances, ought to be the river that runs under the city of *Nagaz*; and the modern name of which, M. D'Anville has found to be *Cow*, in the Turkish geographer above spoken of. It is unfortunate, that neither Mr. Forster's journal, nor Col. Fopham's MS. give the particulars of any of the rivers on the road between *Cabul* and *Candahar*: the latter indeed, notes no less than five streams that cross it: but leaves us in uncertainty as to their bulk, names, and future course. In Alexander's arrangement of boundaries, the river *Cophenes* was the eastern limit of the province of *Paropamisus*; of which *Alexandria*, or *Candahar*, was regarded as

* This work is very scarce, and might be reprinted, with emendation to the publisher.

† The names of places in the map, at page 102, are given according to ancient, as well as modern acceptation of them. The ancient names have a dash under them.

the capital; and I think it answers to the Nagaz river in this respect; and still more in the distance marched by Alexander, in the interval between this river and the Indus. From the Cophenes river, Hephæstion and Perdikkas, with a strong detachment, were sent into the country of *Peucelania* (according to Arrian; *Peucetitis*, according to Strabo) near the Indus, where they were to make ready for ferrying the army over. This country, in name and situation agrees with the modern *Pekely* or *Puckley*, lying on the north of Atock; and Hephæstion's stay there must have been very considerable, previous to Alexander's arrival: upon occasion of the revolt of the Prince of the country, the siege of his capital took up 40 days. Alexander himself, marched from the banks of the Cophenes against the *Assii*, *Tyrrai*, and *Arasaci*; nations, whose situations, and modern names, I am utterly ignorant of; but conclude that they were inferior divisions of the modern Cabul, and situated on the north-east of Candahar; for, not to mention that Alexander would hardly pursue the same route as Hephæstion did, which was to the east; he afterwards sailed down the stream of the Indus, to the place where the bridge was built: and every circumstance serves to prove that his expedition was to the N.E. In his way to the Aspij, he crossed two rivers, the *Chae* and *Buassla*; and defeating the Aspians in a pitched battle, passed through the territories of the *Gurari*; and crossed the river of the same name, with much difficulty, by reason of the depth and rapidity of its stream, and the nature of its bottom, which was composed of round slippery stones. He was at this time, on his way to the country of the *Assaceni*, or *Assaceni*; and this is a point, at which I shall pause, to endeavour to ascertain its position, from the nature of the circumstances relating to it. The river *Gurari*, then, appears to have been the most considerable one that occurred since Alexander passed the Cophenes; it was deep, but yet fordable; for had his army crossed it in boats, they would either have been ignorant of the nature of its bottom; or knowing it, they could

not have regarded it as an obstacle. The description suits the Attock river, which running under Cabul, passes on the east of the territory of Ghizni (Ghuzneen, in the Aym Acharee) and joins the Sinde or Indus, in front of the city of Attock. The Guræi, therefore, answer to the Ghiznians; and their river to that of Attock. It is very difficult to judge of the length of Alexander's march from the Cophenes to the Gureus; but possibly it might be 70 or 80 road miles.

The country of Afficani, appears to border on the east of the Gureus, and answers to *Iffa-tyl*, a territory situated on the south-east of the city of Cabul*, and between that and Bijore. *Maffuga*, the capital, being taken by assault, Alexander summoned *Daxia*, which we may conclude to be the territory adjoining to the Afficani; and here the modern district of *Bijore* presents itself in a position that answers most unequivocally to that of *Bletria*; and the similarity of the names is no less striking. Bijore is a small province bordering on the north of Pishour (or Peishore) which is synonymous with Beckram†, and is confined by the rivers Indus and Attock. Its dimensions are not more than 30 miles by 20, full of mountains and wilds, and inhabited by a savage and turbulent race. Its position becomes interesting, as it contains the famous mountain of *Aornus*, the taking of which was one of the most brilliant exploits of Alexander, in these parts. The Aym Acharee gives no intimation of its containing any such remarkable mountain; but describes it generally as a very strong country, and as having fastnesses, into which the inhabitants occasionally retreat. According to the above particulars of the situation of Bijore, and the account of Alexander's proceedings after he left Aornus, I conclude that this celebrated mountain lies about 55 G. miles northward, or N N E, from Pishour; and 85 from Cabul. Arrian describes its base to be 18 or 20 miles‡ in circuit; of vast elevation, and ac-

* Aym Acharee Vol. II. p. 195.

† Reckoning 10 fades to a mile.

‡ Ibid. p. 104 and 205.

cessible only by one narrow path, cut out in the rock. On the summit was a great extent of arable and pasture land, with springs of water; so that a garrison of 1000 men might subsist, without any extraneous aid. We may suppose it to be somewhat similar to Gwallior*, or Rotas Gur in Bahar. The Indus does not pass near Aornus; because the district of Sowhad *proper* lies between the Indus and Bijore, according to the Ayin Acbaree.

M. D'Anville in his *Eclaircissement*, and *Antiquité de L'Inde*, informs us that the Sicer Otter, in his account of the return of Nadir Shah, in 1739, (a work I have never been able to meet with) describes a remarkable mountain of the name of *Renas*, on the east of the Attock river, and near the banks of the *Suvat*: and indeed, in the position, in which we might expect to find *Aornus*. The river *Suvat*, probably means that of *Sowhad*; a province bordering, as we have said before, on the west of the Indus: and I should suspect that the Indus itself is intended by the river *Suvat*. M. D'Anville's reasoning, to prove that *Renas* and *Aornus* are meant for the same word, is very curious: and I beg leave to refer the reader to page 17 of the *Antiquité de L'Inde*, where he will find it in the author's own words.

It appears that Alexander, after the taking of Bazira, and before he besieged Aornus (notwithstanding its proximity to the former) proceeded to the Indus, where he took possession of the city and fortress of Peuceleotis, and several small towns on, or near, that river: and as Hephæstion and Perdicaas make their appearance here, I conclude this to be the city spoken of before, as sustaining a siege of 30 days; which period might possibly expire about the time of Alexander's arrival: and the surrender might have been a consequence of it.

We have before supposed the country of Peuceleotis to be the modern Pehkely: and the fortress and city in question, was proba-

* See the Index, article Gwallior.

bly the capital of it. The Ayin Acharee describes the province thus: it is situated on the west (or rather S W) of Cashmere; with the country of Gehker to the south; Attock to the west (or S W) Sowhad, which includes Bijore, on the N W; and Kenore on the north: its rivers are the Behut, Sinder (or Indus) and Kishengonga: and its dimensions 66 B. miles by 47. The two circumstances of the Indus and Kishengonga passing through it; and its bordering on the district of Attock (or Attock-Benaris) point out its general position very clearly. Mr. Forster shews us that the Attock district extends 27 or 30 miles to the N N E. of the city of that name: and it may possibly go somewhat farther northward; though probably not much. Here then we place the southern limit of Pehkely, about 35 miles above the city of Attock, and extend it to the N N E, along the shores of the Indus; though much more of it lies on the east of that river, than on the west. The Kishengonga being the common boundary of Pehkely and Cashmere, proves that Pehkely has its greatest extent from N E to S W: and Mr. Forster, who avoided the Pehkely district, and did not see the Kishengonga, must have been to the east of it, in his journey from Cashmere to Pishour. A slight inspection of the map, at page 102, will convey a clearer idea of the relative positions of the several provinces just mentioned, than any written description: and to that, I shall beg leave to refer the reader.

If I understand the matter right, Alexander left the rock Aornus behind him, as I said before, when he proceeded to *Peucelautis*, to receive its surrender: and afterwards marched back again (that is, to the N or N W) to invest the rock; taking the city of *Embolima*, which stood near it, in his way. And after the taking of Aornus, he made a second expedition into the country of the *Assacani*, still tracing back his steps to the northward. His errand among the *Assacani* (*Issa-kyl*) this second time, was to get possession of some elephants, which were said to be sent thither, to prevent their falling into his hands. It was doubtless an object to him, to be provided

vided with a sufficient number of elephants, in order to oppose, with a prospect of success, those of his enemies, when he should arrive on the east side of the Indus. And although Alexander might, from his superior knowledge of discipline, despise the attacks of those animals, as every accomplished general in every age has done; yet from an equal degree of knowledge of the human mind, he might conclude that his soldiers in general would feel themselves possessed of more confidence, when, in addition to their ordinary means of attack, they could also employ that, which appeared the most formidable in the hands of their enemies. The elephants were at last found, in the pastures near the Indus, and sent off by land to the grand army; which we may suppose to be on their march, towards the bridge. He in the mean time, possibly tired of marching; or for the sake of novelty, wishing to embark on the Indus; caused trees to be felled, with which having constructed boats (according to Arrian) he sailed down the stream to the bridge. Possibly he made some rafts, which might be fully equal to his wants; but it is difficult to conceive, by those who are acquainted with the nature of constructing any kind of boats, that he either waited to build them; or that he carried with him the requisites for their equipment, on so sudden an emergency.

I have before (page 92) supposed Attock to be the place where Alexander crossed the Indus: and over and above the reasons there assigned for it, I will now add another: which is, that after he came to the bridge, (which was completed before his arrival) he made an excursion by land, into the country adjacent to the western bank of the Indus, to view the city of *Nysa* (supposed by D'Anville to be Nagaz, the *Nagara*, or *Dymyshepolis* of Ptolemy) and he is then said to have entered the country, that lay between the two rivers, Cophenes and Indus. We have before taken it for granted that the Cophenes is the river that runs by Nagaz, and falls into the Indus about 30 miles below the city of Attock; and as the river Attock joins the Indus in front of the city of that name, it is clear that

that until he came opposite to that city, he could not be between the Cophenes and Indus. And if it be said that the Attock river, was the Cophenes, he had all along been between the Cophenes and the Indus; and Arrian's words could have no meaning. But it is probable on every account that Attock was the crossing place: there the mountainous country from the north-east terminates, and the plains of the Panjab begin; a circumstance highly favourable to his future plan of penetrating into India, and no less so to the construction of his bridge; which was no easy matter to accomplish, across a river so wide and so rapid as the Indus; but which was less difficult in a level country than in a mountainous one. The bridge was undoubtedly made of boats, as Tamerlane's was, in 1398: but Tamerlane crossed at a season, when the river, was (comparatively) low; Alexander, after it was considerably swollen, with the periodical rains.

By Alexander's sending off Hephestion from the Cophenes, to provide the means of passing the Indus in the country of *Peuce-laotis* (Pehkely) it would appear that he had an intention of crossing it higher up than he afterwards did: and it was natural enough, before he had learnt from Hephestion that the situation was in every respect, unfavourable.

It is unlikely that Alexander, so far from visiting Cashmere, as some have thought, ever had heard any distinct account of it; otherwise some of the writers of his life, would surely have taken notice of so extraordinary a country: nay, I conclude, according to my idea of Alexander's character, that he would certainly have visited it; when he returned to the Hydaspes, to embark for the Indus: and was, in some degree at leisure; if a man who is eternally preparing work for himself, can be said to have any.

As M. D'Anville's account of Alexander's progress in the *Antiquité de L'Inde*, supposes that the Behut, or Chelum (he calls it Genave) the westernmost of the Panjab rivers, was the Indus of Alexander; it is necessary to observe, that M. D'Anville's opinion

was formed on the supposed certainty of that Monarch's having only four rivers between him and the country of the Prañi, when he had crossed the Indus. That learned geographer had not the true geography of the Panjab before him: and, in fact, Alexander had all the five rivers of the Panjab to cross, after he arrived on the east side of the river, which he supposed to be, and was in reality, the Indus.

I return from this long digression concerning Alexander, to the account of the modern geography of the tract in question. I am convinced that the more our knowledge of the particular geography of the countries, on both sides of the upper parts of the Indus, increases; the clearer will be our ideas of Alexander's marches. The commentaries of the Emperor Baber, quoted in the *Ayin Acbaree*, may be a fruitful source of information; as they treat particularly of the province of Cabul.

BETWEEN Candahar and Mefchid-Sirr, on the south coast of the Caspian sea, Mr. Forster's route lay in a pretty strait line through Herat, Terzhish, and Bustan (Bistam in D'Anville) and this circumstance is favourable to the design of using his scale of computed farsangs, through that space. He estimates this measure roundly at 2 cosses; or about 4 British miles. His whole number of farsangs between Candahar and Mefchid is 280*, and the distance according to M. D'Anville, (the best authority I know), is 15° of longitude, wanting 12', which with the difference of latitude between 33° and 37°, gives 772 G. miles. The farsang then, pro-

* The whole number, summed up, is 276; but there is an omission of the distance of a stage between Natirabad and Shawroot; and this I have allowed 4 farsangs for.

duces 2,757 G. miles of horizontal distance; or allowing for the inflexions of the road 3,71, or near $3\frac{1}{2}$ British miles; not very wide of Mr. Forster's estimation: for 2 Hindoostanny coffes may be taken at 3,8 B. miles. According to this proportion, about $21\frac{1}{2}$ farfangs, will make a degree of a great circle. M. D'Anville's scale of *Parasangas* in his Euphrates and Tigris, are at the rate of $25\frac{1}{2}$ to a degree. With the aboye scale, I have compared some of the intermediate places, in M. D'Anville's map of Asia, and find that Herat, the capital city of Korasan, is too far to the west by $1^{\circ} 37'$ of longitude; and Terzbish (or Terzhiz) by $15'$, in respect of the Caspian sea. These positions I have ventured to alter: for it is probable that M. D'Anville might not have been possessed of an itinerary, so accurate as Mr. Forster's. Between Candahar and Gimmock, Mr. Forster estimates the bearing, at W and W by N: and the short distance between the latter, and Herat, N. No reason is assigned for the sudden change of course. From Herat to Buzan, W by N, and the remainder of the way, W, W by N, and N W. All these bearings are tolerably accurate.

This gentleman furnishes us with new ideas respecting the bearing of the chain of mountains, that is commonly supposed to penetrate Asia from west to east, under various names: or rather, he brings us back to the ideas left us by the ancients. It is unquestionable, that the Greeks and Romans knew more of the particular geography of Persia, than the *modern Europeans* do: although the parts that are known to us, may be arranged with more geometrical precision. This chain or ridge, which rises in lesser Asia, and was anciently named *Taurus*, and runs eastward through Armenia; and from thence deviating to the S E, shuts up the south coast of the Caspian sea; was continued by Ptolemy, under the names of *Coronus*, *Saripbi*, and *Paropamisus*: dividing Hyrcania and Tapuri, from Parthia; Margiana from Aria; and Bactria from the province of Paropamisus (or, according to modern geography, dividing Mazanderan, or Taberistan, from Comis; Dahistan from Korasan;

and Balk from Scistan, or Sigistan) and finally was made to join that vast ridge, which under the name of *Indian Caucasus*, divided India from Bactria; and afterwards took the names of *Imaus* and *Emodus*; separating India from Scythia. It is not known to the moderns, what course this chain takes, after it leaves the neighbourhood of the Caspian sea: or whether it does in reality join the Indian Caucasus: but the probability of it is strong, although it is not after the manner M. D'Anville supposed: for he gives it an E S E direction from the Caspian, and makes it pass on the south of Herat. But had this been the case, Mr. Forster must have crossed it in his way from Candahar; instead of which, he crossed no mountains until he came within 90 miles of the Caspian sea; so that he left the continuation of the Indian Caucasus, if such there be, on his right; or to the northward; and I really believe that the ridge does exist, under the form described by Ptolemy: for the rivers crossed by Mr. Forster, had all a southerly course; proving that the high land lay to the north, although out of sight: therefore the connexion between the Caspian mountains, and the Indian Caucasus, must be by the north of Korasan. As for the ridge that Mr. Forster crossed near the Caspian sea, it had a north and south direction, and answers to the mountains *Masdoramus* of Ptolemy, which shut up the eastern side of *Parthia proper*, which lay on the S E of the Caspian. The modern name of this ridge is *Kana-boody*; and Mr. Forster remarks that the elevation of it is far greater on the west, than on the east: so that the lands of Korasan, are in general, more elevated than those towards Ispahan. The Kana-boody mountains are those which M. D'Anville has extended to Herat and Cabul; but we find their course to be quite different; but how far they extend to the south or S E is still a question.

I confess it was a matter of surprise to me that there should be no mountains between the province of Cabul and Tershish, in the route passed by Mr. Forster: he describes nothing but scattering hills, where the maps usually represent lofty chains of mountains.

Through-

Throughout his whole route from Candahar to the Caspian sea, he crossed no stream that was too deep to be forded, although the journey lasted from the beginning of August, to the latter end of January.

I have introduced Alexander's march after Bessus, &c. in order to render the map more compleat. We may trace the ancient *Tapuri*, in Taberistan; *Dabe*, in Dahistan; *Arachosia*, in Arokhage; and *Aria*, in Herat, or Harat. Cau-casus, and Paro-pamisus, the names of ridges of mountains on the NW of India, derive part of their names from *Ko* and *Paḥar*, words which signify mountains and hills in the Indian languages. Of Imaus, we have spoken before, in page 96. Probably, the name of the Caucasus of Georgia, had the same derivation, as that of India.

I shall close the account of this small map, with an observation or two, respecting some geographical misconceptions which I have observed to prevail, even among some of the learned. The first is, that the modern Bucharja (or Bocharia) is the same with the ancient Bactria. This is so far from being the case, that Bucharja is situated beyond the river anciently called the *Oxus*, or the modern Jihon; and is the country anciently named *Sogdiana*; from *Sogd*, the valley: that is, the beautiful valley, in which Samarcand (anciently *Maracanda*) is situated. Bactria, or Bactriana, on the contrary, lay on the *south* of the *Oxus*; and comprehended the present provinces of Balk and Gaur; and probably part of Kerasan. *Maver-ul-nere*, is also applied to the country beyond the Jihon; and between the lower parts of the courses of that river, and the *Sirr*, or ancient *Iaxartes*: *Mavel-ul-nere* signifying *the country beyond the river*; or *Transoxiana*.

The other misconception respects ancient *Parthia*. Very inaccurate ideas prevail concerning the local position of that country. Those whose knowledge of it is collected chiefly from its wars with the Romans, conceive Parthia to be only the countries bordering on the Euphrates and Tigris; as their boundaries, on the extension of their empire,

pires, met those of the Romans. Strabo has either been mistaken in this point, or has not fully expressed himself, where he describes the Parthians who defeated Crassus, as the descendants of those Carduchians, who gave so much trouble to Xenophon, during the celebrated retreat of the Greeks. It is probable, or at least possible, that the Parthians might have had in their army at that time, some detachments from among those hardy mountaineers; as the Carduchi were then numbered among their subjects: but the bulk of the Parthian army, came from Persia, their proper country. Whoever considers the slight subjection in which the Carduchians were held, even during the vigorous reigns of the first Persian Emperors, will not expect that the Parthians had many recruits from that quarter. The history of the Parthian geography is briefly this: Parthia proper, was a small province, very near to the south-east extreme of the Caspian sea; which territory, after the division of Alexander's empire, fell to the share of the Seleucidæ, Kings of Syria, and of the east, about 300 years before our æra. About 50 years after, Parthia rebelled; and together with Hyrcania, and other adjoining provinces, became an independant state, under Arsaces. As the empire of the Seleucidæ grew weaker, the Parthians extended their country westward; and the fine province of Media (now Irak-Ajami) fell to them: and within a century after the foundation of their state, it had swallowed up all the countries from the Indus to the Euphrates, Bactria included: and this province had thrown off the yoke of the Seleucidæ, long before Parthia. The Parthian conquests in Armenia, about 70 years before Christ, brought them acquainted with the Romans; whose conquests met theirs, both in that country and in Syria. The Parthians, together with their conquests, had advanced their capital westwards; and had established it on the Tigris at Seleucia, or rather Ctesiphon (near the present Bagdad) before their wars with the Romans commenced. The particulars of their first wars with the Roman people, which continued about 65 years, are too well known to be repeated, here,

, had

had this been a proper place for it; such as the expeditions of Pompey, and Anthony; and the defeat of Crassus. On occasion of this last event, the Parthians extended their conquests further westward, but were afterwards compelled to retire: and they generally lost ground in Armenia and Mesopotamia, during the time of the Roman Emperors. Trajan penetrated to their capital; and satisfied his curiosity by embarking on the Indian sea. The moderation of Adrian restored the ancient boundary of the Euphrates. In A. D. 245, Persis, or Persia proper, which had hitherto ranked as a province of Parthia, gained the ascendancy; and under Artaxerxes, put an end to the dynasty of the Arsacidæ, and restored the ancient name of Persia to the empire; after that of Parthia had existed about 480 years. So that, in fact, the Parthian empire, considered generally, was the Persian, under another name.

SECTION

SECTION IV.

The Tract situated between the KISTNAH River, and the Countries traversed by the Courses of the GANGES and INDUS, and their principal Branches : that is to say, the middle Parts of INDIA.

THIS very extensive tract is bounded on the north-east by the soubahs of Bengal, Bahar, Allahabad, and Agra; on the N W by the course of the river Puddar; on the east and west by the sea; and on the south by the river Kistnah or Krishnah: and comprehends in general the soubahs of Guzerat, Malwa, Berar, Orissa, Candeish, Amiednagur (or Dowlatabad) Viliapour (or Bejapour) and Golconda. It is about 800 British miles in length from N W to S E; and 600 wide; and has in and about it, many points that are determined either by celestial observations; or inferred from such points, by the help of surveys or good charts.

The fundamental points on which the construction and scale of this part depend, are as follows:

On the north and north-east, Agra, as determined by observations and survey (page 48); and Calpy, Chatterpour, Rewah, Burwah, and Balasore, inferred from measured lines drawn from other places of observation. On the east, Cattack, as determined by Col. Pearse, (page 11). On the south, Masulipatam, as determined by Col. Pearse, and Capt. Ritchie (page 12). On the west, Bombay, by the observations of the Hon. Mr. Howe (page 31). and
Surat,

Surat, Cambay, and Diu Point, inferred from charts and surveys (page 33). And in the interior parts, Narwah, Sirong, Bopaul, Hussingabad, Burhanpour, Poonah, Amedabad, by Mr. Smith's observations, and General Goddard's march: Nagpour, Ruttunpour, and Gurrah, by Mr. Ewart's observations and surveys; and Aurungabad, Hydrabad, Sumbulpour, Agimere, and Areg (near Vifiapour) by miscellaneous materials. I shall proceed first, to give the authorities by which these *primary stations* of points, were determined; and afterwards shew how the intermediate parts were filled up, in detail. The construction of the sea coasts, on both sides of this tract, has been already discussed, in section I: and I shall begin my account of the construction of the inland parts, with Mr. Smith's and General Goddard's lines across the continent, from Calpy to Bombay, and Surat.

The Rev. Mr. Smith set out from Calpy with Col. Upton in 1776, on an embassy to the Mahratta Court at Poonah; and fell into the great road from Delhi and Agra to the Deccan, at the city of Narwah; which is situated on the river Sindoh, near the entrance of a famous pass, that leads through the chain of mountains, that divide Malwa from Agra. From Narwah, he proceeded to Sirong, a city of Malwa, subject to Madadjee Sindia: and from thence to Burhanpour, the capital of Candeeish; and at one period, of the Deccan also. It is yet a flourishing city; and is situated in the midst of a delightful country. In his way to this place from Sirong, he crossed the famous river Nerbuddah; formerly the reputed boundary of the Deccan, to the north. From Burhanpour, he went to Poonah, the capital of the western Mahratta empire, crossing the heads of the Godavery and Beemah rivers in his way: and from Poonah to Bombay. During all this route, he took observations of latitude and longitude, as often as opportunity offered; which was not unfrequently: and with these, together with the intermediate bearings of the road, he constructed a map, which is no less valuable on the score of its general accuracy, and extensive

information; than curious, by the novelty of its subject. We had then for the first time, a geographical line, on which we could depend, drawn across the continent of India, through the principal points between Agra and Poonah; and which, by establishing so many interesting positions, has enabled us to correct several routes, which, without it, would have remained very indeterminate. Narwah, for instance, corrects the bearing and distance of the road between it, and Agra; Sirong, the road to Ougein, and Mundu; and Burhanpour, the position of Aurungabad, and the bearing of the roads to Surat, Hyderabad, and Nagpour.

General Goddard's celebrated march from Calpy to Surat, touches on the route of Mr. Smith, at Calpy, Sirong, Bopaul, Hurdah, and Burhanpour; and the map of it, which remained in the General's possession at the time of his death, was said to be drawn from the materials furnished by the field engineers, who measured the distances, and took the bearings of the road, the whole way. On a comparison of the difference of longitude shown by this map, with that resulting from Mr. Smith's observations, the difference was 6' 35"; the measured line giving so much more than the observations.

General Goddard's map gave the miles of westing, }
between Calpy and Sirong 109, or difference } 2° 0' 15"
of longitude

And from Sirong to Burhanpour 96, miles of west- }
ing; or difference of longitude } 1 44 20

Whole difference between Calpy and Burhanpour } 3 44 35

And, Mr. Smith's longitude of Calpy is } 80° 0' 0"
Burhanpour } 76 22 9

Difference of longitude by observation } 3 38 0

And

And in the interval between Calpy and Sirong, about 2 degrees, the measurement exceeded the difference of longitude by observation 4 minutes; so that the measured line exceeded the distance by observation, proportionally through each interval.

Now it remains to be observed, that Calpy, on the south bank of the Jumna river, the last point in the survey, that way, and the first in Mr. Smith's route; stands in my map, in lat. $26^{\circ} 7' 15''$, and in lon. $80^{\circ} 4'$; while Mr. Smith reckons it in 80° . Again, on the west side of India, I have taken Bombay at $72^{\circ} 40'$ (see page 31) and Mr. Smith places it in $72^{\circ} 45'$; so that, in fact, he is 4' to the west of my account at Calpy, and 5' to the east of it at Bombay: his whole difference of longitude between Calpy and Bombay, being 9' less than what I have taken it at. And again, it has been observed that Mr. Smith reckons $6' 35''$ less between Calpy and Burhanpour, than Goddard's measured route gives. It is certain that observations of longitude, taken in the ordinary way, cannot be expected to correct small errors in distance, so well as measured lines; and therefore it is no impeachment of the general utility of Mr. Smith's observations, that I have ventured to deviate from them, in fixing the positions of some places in the road across the continent.

Narwah, or Narwha, is the first point that I shall notice in Mr. Smith's map, from Calpy. He places this city and fortress in lat. $25^{\circ} 40''$; lon. $78^{\circ} 17'$; his difference of longitude from Calpy, being $1^{\circ} 43'$. Mr. Cameron, who surveyed the roads and country between Etayah and Sirong, reckons $1^{\circ} 3'$ difference of latitude, and 57 miles of westing, or $1^{\circ} 4'$ difference of longitude from Etayah to Narwah. Now, Etayah being by the survey in $26^{\circ} 43' 40''$ lat.; and $79^{\circ} 17'$ lon.; the latitude of Sirong comes out perfectly right, but the longitude is 4' to the west of Mr. Smith's account; or $78^{\circ} 13'$. I cannot, however, determine with what degree of exactness, this survey was made; and I have placed Narwah in $79^{\circ} 17'$.

. Sirong (called also ~~Serong~~) by Mr. Smith's observations, is in lon. $78^{\circ} 4'$; and as General Goddard's map makes it 2° of longitude west from Calpy (which is in $80^{\circ} 4'$ by the above account) they both agree in this point, although they differ in the quantity of westing between the two meridians of Calpy and Sirong: for Mr. Smith's difference of longitude is only $1^{\circ} 56'$; and the measured line exceeds it by 4 minutes. The latitude of Sirong is $24^{\circ} 4' 40''$. It is proper to observe, that General Goddard's route crossed Mr. Smith's about 6 miles to the S E of the latter place; but the survey was *closed* to it.

Between Calpy and Sirong, General Goddard's route passed through Chatterpou, a city in the western quarter of Bundelcund (or Bundela). This place was formerly visited, and its position determined by mensuration, from Rewah; by Capt. Carter. He placed it in lat. $24^{\circ} 58' 30''$; lon. $79^{\circ} 56' 30''$. General Goddard's route represents it as being half a minute in latitude more to the north, that is in $24^{\circ} 59'$; and $3' 30''$ more westerly in respect of Calpy. As it was fixed by a measured line drawn westward from Rewah, its longitude ought to be better determined by it, than by a meridional line drawn from Calpy; and accordingly, I have not altered its position.

Bopaltol is the next place where the roads meet; Mr. Smith's longitude of it is $77^{\circ} 48'$, and lat. $23^{\circ} 13' 30''$. General Goddard's map gives 32 G. miles, or $35' 15''$ of longitude, from Sirong; making Bopal in $77^{\circ} 28' 45''$. I have placed it in $77^{\circ} 28'$ lon.; and $23^{\circ} 14'$ latitude. It appears unaccountable that there should be no less than 19' difference, between Goddard's account and Mr. Smith's, in the longitude of Bopal. I copied the longitude, as it stands above, from Mr. Smith's map.

Hurdah, on the south of the Nerbuddah river, is the next point of junction of the two routes. This, Mr. Smith places in $77^{\circ} 21' 15''$; and by Goddard's line, it comes out $1' 30''$ more to the west; or $77^{\circ} 19' 45''$. It will be recollected, that as General Goddard

at setting out, was 4" to the eastward, of Mr. Smith's account (at Calpy) Hurdah will be 5' 30" on the whole, more to the westward, than Mr. Smith's difference of longitude from Calpy, would give.

Between Bopal and Hurdah, General Goddard's route makes a large elbow, or angle, to the south-east, to Hufflingabad Gaut, on the south bank of the Nerbuddah river; and on the frontiers of Nagpou, the eastern division of the Mahratta empire; thus establishing a most useful primary point or station, in a quarter where it was the most wanted. Hufflingabad is placed in lat. $22^{\circ} 42' 30''$, lon. $77^{\circ} 54'$; and about 140 G. miles to the N W. of Nagpou city.

The two routes run often into, and across, each other, between Hurdah and Burhappour. The latter, as is said before, is by Mr. Smith's observation, in lon. $76^{\circ} 22'$; and in l.t. $21^{\circ} 19'$; and by Goddard's measurement, which gives $3^{\circ} 44' 35''$ from Calpy, in lon. $76^{\circ} 19' 25''$; which, rejecting the seconds, is the longitude I have adopted for it; not altogether on the evidence of the measured distances themselves, but because they agree with the whole difference of longitude arising from the observations adopted in the map, between Calpy and Bombay. (see page 130).

Burhanpou is a very fine city, and was one of the earliest conquests made in the Deccan. In Acbar's division of the empire, it ranks as the capital city of the subah of Candish. It is now in the hands of the Poonah, or western Marattas. About 20 miles to the N E of it, is a very strong fortress named Aseer or Aseergur.

The final separation of the two routes, is at Burhappour, from whence Goddard went westward to Surat; and Smith, south-westward, to Poonah. The measure of the road to Surat gives $3^{\circ} 30' 45''$ difference of longitude; which taken from $76^{\circ} 19'$, leaves $72^{\circ} 48' 15''$ for the longitude of Surat; which I have adopted. This subject has been already discussed, in the first section (page 32) where it is observed, that the different authorities between

Bombay and Surat, gave 10' difference of longitude between them; by which (as Bombay is taken at $72^{\circ} 40'$) Surat would be in $72^{\circ} 50' 00''$

If Mr. Smith's observations at Burhanpore was adopted $72^{\circ} 22'$, then it would be in $72^{\circ} 51' 15''$

If his longitude of Bombay, $72^{\circ} 45'$, then $72^{\circ} 55' 00''$

If Mr. Howe's $72^{\circ} 40'$, with an allowance of $8' 15''$ instead of 10' difference of lon. $72^{\circ} 48' 15''$

The left point in Mr. Smith's route, is Poonah, and the longitude given for that, is 74° ; or $1^{\circ} 15'$ east of Bombay. But as I have taken Bombay at $72^{\circ} 40'$, Poonah, to preserve its proportional distance, should be in $73^{\circ} 55'$, which I have accordingly placed it in; so that it stands in respect of Burhanpore only 2 minutes farther to the westward, than Mr. Smith places it. Its latitude is $18^{\circ} 36'$. Between Burhanpore and Poonah, Mr. Smith's map establishes some useful points, from which other routes may be laid off; such as Nasserabad, Chandor, Unkei-Tenki, Bahbelgong, and Nimderrah-Gauz.

Poonah is the capital of the western Mahratta empire, and is situated about 30 miles on the east of the Gaute; 100 road miles from Bombay; and about 75 from the nearest sea coast. It is meanly built; and not large; and lies quite open and defenceless. Pooroondar, a fortress on a mountain, about 18 miles to the E S E of Poonah, is the place of refuge in case of invasion: there the archives of government are deposited; and there I believe the principal officers usually reside. Whenever an invasion has happened, the Mahrattas never thought Poonah a place worthy of defence; and have accordingly destroyed it with their own hands. In a state that can conveniently exist without a great capital, no doubt but that great advantages are gained, in war, by a release from such an incumbrance. An overgrown capital, full of rich inhabitants, and a kind of general depository of wealth, however pleasant it may be, as it respects polished society, and the elegancies of life, yet from the

the greatness of its extent, and other circumstances, incapable of defence; must be considered as a great political evil in a state: it is like a fortress that exposes its weakest part to the enemy, and points his attacks: and to pursue the allegory, there may be some danger of the garrison's sacrificing the interest of the empire at large, in order to preserve their own property, in the hour of assault. The Scythians, who were not chained to the soil, could never be conquered: and those who have no large capitals, stand in the next degree of security, all other circumstances taken into the case. If the question be considered, as it concerns morals, the objections are yet stronger: for the larger the capital, the greater will be the proportion of the population that is corrupted.

Amedabad, the capital of Guzerat, was the extreme point of General Goddard's marches to the northward, in the province of Guzerat. In the first section, a comparison was made between the scale and bearing of the map of General Goddard's marches in Guzerat, and those of the surveys taken between Surat and the Myhie river; and it was found to agree so well, that the line between Brodera and Amedabad might be very safely adopted. The bearing was $N\ 36^{\circ}\ W.$ and the distance 58.2 G. miles, giving for the position of Amedabad, $22^{\circ}\ 58'\ 30''$ lat., and $72^{\circ}\ 37'$ long., or $3'$ west of Bombay. By M. Thevenot's account, the latitude is 23° and some odd minutes: and 23° by the *Ayin Akbari*.

Amedabad is a very considerable city, and succeeded Mahmoodabad, as capital of Guzerat. It is one of the best fortified cities of Hindoostan; and made a good defence when taken by General Goddard in 1760. On the peace of 1763, it was restored to its former possessors, the Poonah Maharras. Travellers have dwelt much on the beauty, and convenient situation of this city, which is in a level country and on the banks of a small navigable river, named Sabhermatty; and which, together with other confluent streams, falls into the head of the gulf of Cambay, near to the city of that name. Cambay, is indeed, the port of Amedabad, and is distant

distant from it about 56 road miles. It is a large city, and appears to be the *Camanes* of Ptolemy; although the gulf, which is now denominated from Cambay, had then its name from Barygaza, or the modern Baroach.

Aurungabad is a point of considerable importance to the construction of the western part of the tract in question; and although we have neither its latitude, longitude, nor distance *accurately measured* from any one point; yet the sort of coincidence that arises between a number of estimated routes, from 6 different places, in opposite directions, round it, imparts a certain conviction of its being placed nearly in its true position. It will be necessary to particularize the principal of these routes. One of them regulates also the positions of Hyderabad, Doder, and Mahur; and is that of M. Bussy from Masulipatam. The copy from whence I have collected my ideas on the subject, is that included in the late Mr. Montresor's map of the southern part of India. As his map goes no farther west than Aurungabad, we may conclude that he has not altered the original bearing and distance, with a view to reconcile its situation to any other place to the north or west.

Masulipatam is already placed in the map, in lat. $16^{\circ} 8' 30''$, lon. $81^{\circ} 15'$, on the authorities of Col. Pearle and Capt. Ritchie (see page 12). This is a city and port of trade, near the mouth of the Kistna river; and appears to be situated within the district named *Mesala*, by Ptolemy. Between this place and Bezoara (or Buzwara) a fort on the north side of the Kistna river. M. Bussy's route allows only 36 G. miles; but as there is wanting a map of Major Stevens's, which fixes the true distance at 40.3 G. miles, I have adopted it; and allowed M. Bussy's authorities to commence only at that point. Bezoara, so placed, is in lat. $16^{\circ} 33'$, and lon. $80^{\circ} 39'$. Then from Bezoara to Aurungabad, the bearing is given at $W 35^{\circ} 10' N$, 32.3 G. miles; producing $3^{\circ} 6'$ difference of latitude; and 20.4 of westing; or difference of longitude (in lat. 18°) $4^{\circ} 38'$. This would place Aurungabad in lat. $19^{\circ} 39'$, lon. $76^{\circ} 1'$.

Bussy's

Bussy's (or rather Montresor's) whole distance from Masulipatam to Aurungabad, was 359.

Let us now examine what *data* we have to check this long line of M. Bussy's, from the side of Surat, Poonah, and Burhanpour. The position of Surat has been just accounted for: and Noopour, a city on the road from Surat to Burhanpour, is by Goddard's route 59' of longitude to the east of Surat; or in lon. $73^{\circ} 47' 15''$. And from this place to Aurungabad, Tavernier reckons 105 coes; which, at 42 to a degree, is 150 G. miles of horizontal distance. Now, Noopour, Aurungabad, and Bezoara, lie as nearly as possible, in a right line, whose extreme length, is 475 G. miles. Tavernier's 150, added to Bussy's 323, make up 473; or the whole space, within 2 miles. But from the nature of a march of an army in a warm climate, great part of which, is often made in the night, it must necessarily require correction; in the bearing at least, and probably in the distance too. Nor can the 105 coes of Tavernier, be expected to be even so correct as the march: it is therefore a matter of surprise that only so small a difference should have arisen. It should be remembered that 443 miles were added to M. Bussy's original distance, between Masulipatam and Bezoara: so that the whole original error was 6,3; if we do not refer a share of it to Tavernier's estimated distance. It is proved in another instance by Major Gardner, in Peach's march from Ellore towards Warangole, that M. Bussy's geographer has given too little distance. This is probably an error of the compiler, not of the surveyor; it being an error of a different kind from what might have been expected in the ordinary way of measuring distances with a perambulator*.

The latitude of Aurungabad is inferred from its distance from Burhanpour given by Golan Mohamed† at 66 coes; and as the

* That long distances may be accurately measured by a perambulator. I need only mention that during the Bengal survey, I measured a meridian line of 3 degrees, with a perambulator, and found it to agree minutely with the observation of latitude. However, due allowance was made for the irregularities of the ground, whenever they occurred. The country indeed, was flat the whole way.

† A sepoy officer sent by Col. Clunne, in 1774, to explore the roads and country of the Deccan, and to gain intelligence concerning the Mahratta powers.

bearing is not far from meridional, we may state the difference of latitude at $1^{\circ} 34'$, which taken from $21^{\circ} 19'$, the latitude of Bucharhpour, leaves $19^{\circ} 45'$, for that of Aurungabad*. Now, M. Buff's line, gives only $19^{\circ} 36'$, which is 6' too far southwardly, by this account. If $19^{\circ} 45'$ be adopted, some further addition must be made to the line of distance from Bezoara; but it is too trifling a matter to require discussion. In effect, the longitude of Aurungabad by these data, will be $76^{\circ} 2' 30''$, lat. $19^{\circ} 45'$.

Two more lines of distance are given, from Nimderrah Gaut and Bahbelgong; two points in Mr. Smith's route, on the west and S W of Aurungabad. Nimderrah is in lat. $19^{\circ} 12' 45''$, lon. $74^{\circ} 54' 30''$; and Bahbelgong in lat. $20^{\circ} 45'$, lon. $74^{\circ} 51' 30''$. M. Anquetil du Perron furnishes these distances: That from Nimderrah to Aurungabad, he reckons 32 cooses; and that from Bahbelgong 34'. Now, as the distance between Poonah and Nimderrah is known, it furnishes a scale for the rest of his route. He makes this distance 34 cooses; but it is clear that he reckoned by some other standard than the common cois (possibly he reckons leagues and cois: the same, as we shall have occasion to remark in his route from Goa to Poonah) for the distance being 69.7 G. miles of horizontal distance between Poonah and Nimderrah, it should rather be 48 cooses, than 34'. However, taking his distance for a scale, whatever the denomination may be, the distance between Nimderrah and Aurungabad, will be 64.7 G. miles, and that from Bahbelgong, 70.2. And the medium of these accounts give also, $76^{\circ} 2' 30''$ for the longitude of Aurungabad.

There is yet another line of distance to Aurungabad, and that is from Nagpour; whose position is ascertained with precision. Two accounts of the estimated distance between them, collected by Lieut. Ewart, are, 162, and 163 cooses: the medium of which, 163, at

* M. D'Anville reckons the same difference of latitude between the two places, but he has placed both of them too far north by 24 minutes; following I apprehend, the latitude of Bucharhpour, given in the *Ayin Akbaree*.

42 coſſes to a degree, is 233 G. miles of horizontal diſtance. This would place Aurungabad, admitting its latitude to be $19^{\circ} 45'$, in $75^{\circ} 53' 30''$ or $9'$ to the weſt of the other accounts. The reſult of the ſhort diſtances, are doubtleſs to be preferred to that of the long ones; and I inſert this laſt only to ſhew the extremes of the different accounts.

Laſtly, if the diſtances from the 4 neareſt points are taken; that is from Nuopour 150 G. miles; Burhanpour 95; Nanderah 64.7; and Bahbelgong 70.2. the medium of the interſections of theſe, will be in lat. $19^{\circ} 44'$ lon. $76'$.

Although I have taken the latitude at $19^{\circ} 45'$, as the diſtance from Burhanpour is ſo nearly meridional: yet the interſections of the other diſtances, point to its being in a lower latitude, by 4 or 5 minutes: in which caſe, its poſition would ſtill be ſomewhat more weſterly.

Upon the whole, I have placed Aurungabad in lat. $19^{\circ} 45'$, lon. $76^{\circ} 2' 30''$; and by what has been ſaid, it cannot be much out of its true place: but as it is a point of great importance in the geography of this part of India, it required particular diſcuſſion; being the centre of ſeveral roads, and the bearing of that long line, between it and Hydrabad, Beder, Calberga, &c. depending on it.

Aurungabad is but a modern city; owing its riſe from a ſmall town, to the capital of the province of Dowlahabad, to Aurungzebe; from whom alſo, it had its name. After the Deccan became a province, of the Mogul empire, it was reckoned the provincial capital; and continued to be ſo, after the Nizams became independent of Delhi; and until the encroachments of the Poona Maſt-rats, of late years, made it an uncomfortable residence to the Nizam. When the Deccan was firſt invaded by the Patan Emperors of Delhi, Deogire was the capital of the province of Dowlahabad, and was ſituated near the fortrefs of the ſame name; which is built on a mountain about 4 or 5 coſſes to the N W of Aurungabad; and is deemed impregnable by the people of the country.

The Emperor Mahomed, in the 14th century, made an attempt to establish the capital of his Empire, at Deogire; and to that end almost ruined Delhi, in order to drive the inhabitants to his new capital, about 750 miles from their ancient habitations; This scheme, however, did not succeed: and was if possible the more absurd, as at that time, but a small progress had been made towards the conquest of the Deccan.

The pagodas of Flora are in the neighbourhood of Dowlatabad, most of which are cut out of the natural rock. M. Thevenot, who particularly describes them, says, that for two leagues together, nothing is to be seen but pagodas, in which there are some thousands of figures. He does not, however, greatly commend the sculpture of them: and, I apprehend, they are of early Hindoo origin. We must remember that Deogire, which stood in this neighbourhood, was the greatest and richest principality in the Deccan: and that the fame of its riches, incited Alla to attack it, in 1293: and these elaborate monuments of superstition, were probably the offspring of that abundant wealth, under a government, purely Hindoo.

M. Bulli's line includes within it, the positions of Hydrabad, Golconda and Beder. When the line is corrected as above, to Aurangabad, Hydrabad will be found in lat. $17^{\circ} 24'$; which I conceive to be too far to the northward, considering its reputed distance from Nagpore and Cuddapah. M. D'Anville too (in his *Eclaircissement*) says that the latitude of Hydrabad is $17^{\circ} 12'$. How he came by his information, I know not; but I believe it to be nearly right: and this is the parallel it is generally placed in. A third circumstance tending to confirm this opinion, is, that the map of Col. Peach's march from Ellore to Warangote (in 1767) in which the distances were measured, and the angles of position taken by Major Gardner, places the latter only 37 G. miles from the position in which Hydrabad stands by M. Bulli's line. It can hardly be deemed an impeachment of the general truth of a line

of 360 G. miles, measured after an army, that a position, in or near that line, should be 10 or 12 miles out of the supposed line of direction. It is conformable to my idea of the distances of Nagpou, Cuddapah, and Warangole, that Hydrabad should be in $17^{\circ} 12'$, rather than in $17^{\circ} 24'$; and I have accordingly followed M. D'Anville: giving the lines between it and Aurungabad on the one side, and Condapilly on the other, a new direction accordingly.

Although by proportioning M. Bussy's march from Bezoara, Hydrabad is placed in $78^{\circ} 51'$ longitude; or only 114 G. miles from Bezoara, yet the different reports of the distance between these places, is much greater than the construction allows. For 114 miles will produce only 87 coſſes, according to the proportion of 46 to a degree (which is the result of the calculation made on the road between Aurungabad and Masulipatam, page 4) whereas, one account from General Joseph Smith, states the number of coſſes at 98; and another from a native at 103. Again, Col. Upton reckoned 118 coſſes between Hydrabad and Ellore, which the construction allows to be only 138 G. miles; or 105 coſſes according to the same proportion of 46 to a degree. So that I have either mistaken the longitude of Hydrabad, which is improbable, all circumstances considered; or the coſſe is even smaller than I have supposed. Or, the road leading through a hilly and woody country, is more crooked than ordinary*; and the journals remark its being very woody, and thinly inhabited, between Condapilly and Hydrabad. Until we have the latitude and longitude of Hydrabad, or some place very near it, we cannot be satisfied with its present position; for M. Bussy's line is too long, to be exact, without the aid of latitude to check it. The reputed distance between it and Nagpou, 169 coſſes, agrees perfectly with its corrected parallel of $17^{\circ} 12'$.

* General Smith's proportion of coſſes to a degree, is $\frac{1}{3}11$; Col. Upton's, $\frac{1}{3}21$; and the map by the native $\frac{1}{3}5$.

Hydrabad or Bagnagur, is the present capital of the Nizams of the Deccan; who since the dismemberment of their empire, have left Aurungabad, the ancient capital; which is not only in a corner of their dominions, but in that corner which lies near their hereditary enemy, the Poona Mahrattas; and which is also the least defensible. About 5 or 6 miles to the W N W of Hydrabad, and joined to it by a wall of communication, is the celebrated fortress of Golconda* occupying the summit of a hill of a conical form, and deemed impregnable. When Aurungzebe conquered the kingdom of Golconda, in 1687, this fortress was taken possession of by treachery.

The next *primary point of station*, and one of the most important, as being the farthest removed from any other given point, in the whole construction, is Nagpou: the capital of the eastern division of the Mahratta empire, and nearly in the centre of India. This last consideration, and the number of roads issuing from it to the circumjacent cities, most of which roads had their distances given by computation only, made the determination of this point a grand desideratum in Indian geography. Mr. Hastings therefore, with that regard to useful science and improvements of every kind, which has ever distinguished his character, directed a survey to be made of the roads leading to it from the western frontier of Bahar; and also from the side of Allahabad. This was executed in 1782 and 1783, by Lieut. Ewart, under the direction of Col. Call, the Surveyor General. The result of this expedition was perfectly satisfactory. He began his measured line at Chittra or Chetra in Bahar, placed in 85° of longitude, and in lat. $24^{\circ} 12'$, in my map of Bengal and Bahar; and his difference of longitude from thence to Nagpou, in lat. $21^{\circ} 8' 30''$, was $5^{\circ} 16'$ west: by which Nagpou would be in $79^{\circ} 44'$. And from Nagpou back to Benares, in lon. $83^{\circ} 13'$, in the same map, he made $3^{\circ} 25' 10''$, difference of longitude, east;

* The termination, *roade, or land*, signifies fortress, and often occurs in the south part of India; as *rotter*, and *ette*, which have the same signification, do in the north. *Gar* is used in the same sense occasionally in every part.

which placed Nagpour in lon. $79^{\circ} 47' 50''$, or $3' 50''$ only, different from the other account; and this I suspect to arise partly from the error of his needle. If we close the account back again to Chittra, the place he set out from, he made only 4 minutes difference, in the distance out and home: and the road distance, was 600 B. miles from Chittra to Nagpour, only.

Taking the medium of the two accounts, the longitude of Nagpour will be $79^{\circ} 45' 55''$, or $79^{\circ} 46'$. The observations for determining the longitude at this place, by Lieut. Ewart, do not accord with the above account, by a considerable number of minutes: therefore I have not inserted them here, in expectation that they may be compared with corresponding ones, taken at places whose situations are already ascertained.

As Mr. Ewart's route to Nagpour, was by way of Burwah, Surgoojah, and Ruttunpour: and from thence to Banares, by Guiry, the capital of Mundella, he ascertained the positions of those places, satisfactorily; and by that means added to the number of primary stations. The latitudes were constantly taken, in order to correct the route, in detail. Nor did his work end here: for his enquiries at Nagpour, furnish a number of estimated or computed routes from that capital to Burhanpour, Ellichpour, Aurangabad, Neermul, Mahur, Chanda, &c. that is, in every direction, except the S E; whence we may infer the state of that tract to be wild, uncultivated, and little frequented. And it appears by his intelligence, that the way to Cattaek is unsafe in any direction farther south than Sumbulpour.

Nagpour, the capital of Moodajee Boonslah, the chief of the eastern Mahratta state, is a city of modern date; and though very extensive and populous, is meanly built, and is open and defenceless, save only by a small citadel, and that of little strength. The city is said, by Golan Mohamed, to be twice as large as Patna; but Mr. Ewart's account makes it but of a moderate size. Moodajee's principal fortress, the depository of his treasures and valuables, is

Gyalgur, called also Gawile, situated on a steep mountain, about 103 G. miles to the W by N of Nagpour. Each of the native Princes in India, has a depositary of this kind, and commonly at a distance from his place of residence: the unsettled state of the country making it necessary. The country round Nagpour is fertile and well cultivated, interspersed with hills of a moderate height: but the general appearance of the country at large, and particularly between Nagpour and Bahar, is that of a forest, thinly set with villages, and towns. It is the western and northern parts of Moodajee's country, that produce the largest part of his revenue; together with the *Chout*, or proportion of the revenues of Ellichpour, &c. held by the Nizam.

Ruttunpour is a city lying in the road from Bahar to Nagpour, and is the capital, and residence of Bambajee, who holds the government of the eastern part of the Nagpour territories, under his brother Moodagee. This place, also, has its position fixed very accurately by Mr. Ewart, in lat. $22^{\circ} 16'$, lon. $82^{\circ} 36'$. This is a *primary station* of great use, as it regulates all the positions between Cattack and Gurry-Mundella; between Bahar and Nagpour. As its corrected position differs only 3 miles from the former estimated one, collected from Col. Camac's observations and enquiries; it serves as an additional proof, how much may be effected by a careful examination and register of the estimated distances on the roads: and this mode of improving the geography of India, may be adopted, when all others fail. An intelligent person should be employed in collecting such sort of information, as Mr. Ewart collected at Nagpour, from the principal cities in the least known parts of Hindoostan; at the same time determining the position of such cities, by celestial observations; by which means a number of fixed points would be established, from whence the computed distances might at once be laid off, and corrected. More could be done in this way in a short time, towards completing the geography, than most people

people can easily conceive: and, I flatter myself, it will be soon adopted.

Agimere, Ajmere, or Azmere, is the *primary point* on which the geography of the N W part of the tract in question, rests; and is determined by the estimated distances from Agra and Burhanpour. An itinerary kept by John Steel, reckons 119 cosses between Agra and Agimere: and Tavernier, who left Agimere to the north, in his way from Amedabad, reckoned 100 cosses from Banderlandry to Agra; and Banderlandry being 14 from Agimere, by Steel's account; we may take 114 for the whole distance, from Agra to Agimere. A map of Malwa and its neighbourhood, communicated by Mr. Bensley, places Agimere 180 G. miles to the west of Gwalior; and another map communicated by Mr. Hastings, gives the same distance. By the construction, founded on Mr. Steel's 119 cosses from Agra, and which produce 172½ G. miles, Agimere is found to be 10½ miles short of the distance from Gwalior, in the above maps.

The parallel of Agimere is determined by Sir Thomas Roe's computation of the distance from Burhanpour to Agimere, through Mundu and Cheitore; and that is 222 cosses, or 318 G. miles: and the intersection of the two distances from Burhanpour and Agra, happens in lat. $26^{\circ} 35'$, lon. $75^{\circ} 20'$. This is the position of Agimere in the map: no great accuracy, however, with respect to its parallel, can be expected, where the authority is nothing more than a single line of distance, and that a very long one. The Ayin Acbaree is totally silent concerning its latitude and longitude. Col. Call, in a map of his, communicated by Mr. Hastings, places it in the parallel I have assigned to it; and allows it to be distant from Burhanpour, 307 G. miles, and 192½ from Agra; on what authority, I know not. Thevenot gives its latitude at $26\frac{1}{2}^{\circ}$.

Agimere was the capital of the foubah of the same name, in Acbar's division of the empire, and is probably the *Gagasmira* of Ptolemy. It is built at the foot of a very high mountain; on the

top of which, is a fortress of very great strength. It is about 230 miles by the road, from Agra, and yet the famous Emperor Acbar, made a pilgrimage on foot, to the tomb of a saint, there; to implore the divine blessing on his family, which at that time consisted only of daughters; but after this pilgrimage, he had three sons added to it. Jehanguire, his son and successor, occasionally kept his Court here; and this occasioned the visits of Sir Thomas Roe to this place; as well as to Cheitore, and Mundu, which lay in his way to it, from Surat.

Ougein can hardly be regarded as a primary station, as it effects the position of one place only; that is, Mundu. Col. Camac's tables place it 50 cosses from Bopaltol, a point in Smith's and Goddard's routes; and 89 from Pawangur, which is 14 cosses to the E N E of Brodera, in Guzerat. A Persian book of routes, obligingly communicated by Capt. Kirkpatrick, gives 108 cosses between Ougein and Brodera; or 5 more than Camac's account. This, together with some other routes from the Persian book, was translated for me, by Mr. David Anderson, whose services on the memorable occasion of negociating the Mahratta peace, in 1782 and 1783, claim the united acknowledgments of Great Britain, and Hindoostan. If we take the distance on the map, between Bopal and Brodera, through Ougein (which occasions a considerable bend in the line) it will be found to be 251 G. miles: and the computation of cosses being 158, the proportion will be about 38 to a degree; which is nearly the scale adopted for Malwa, in page 5. Having laid off 50 cosses for the distance of Ougein from Bopal, westward, by this scale; the parallel of Ougein is then obtained by its reputed distance from Mundu: concerning whose position, we have only the following information:

Sir Thomas Roe passed it in his way from Burhanpour to Cheitore and Agimere, in 1615; and reckoned it 66 cosses from the former, or 94 G. miles. For the direction of this line of distance, which appears to be about N by W, we have nothing more than

the general bearing and distance of Mundu from Ougein to guide us : the general longitude of Ougein, which alone concerns this part of the question, being obtained by means of the lines of distance from Bopal and Brodera. D'Anville gives the bearing line of Mundu from Ougein, at S S W, distance $31\frac{1}{2}$ G. miles ; and a MS. map of Col. Muir's has it S $\frac{1}{4}$ W 36. I have made the bearing S by W, and the distance 36 miles ; whence the result will be, that Mundu is in lat. $22^{\circ} 50'$, lon. $75^{\circ} 47'$. Col. Muir's map places it in $23^{\circ} 18'$, and M. D'Anville's in $23^{\circ} 10'$; but this is owing to his taking Buthanpour at too high a latitude, by 30 minutes.

The 50 cosses, or 86 G. miles, being laid off from Bopal, westward ; and 36 miles northward from Mundu, give the position of Ougein in lat. $23^{\circ} 26'$, lon. $75^{\circ} 56'$. The Ayin Acbaree takes no notice either of the latitudes or longitudes of Ougein or Mundu ; although such ancient and famous cities. Col. Muir's map has the latitude of Ougein at $23^{\circ} 56'$, or $30'$ to the northward of the assumed position of it, in the map. And D'Anville places it in $23^{\circ} 39'$.

The cities of Ougein and Mundu are both of great antiquity. The former appears evidently both as to name and position, in Ptolemy, under the name of *Ozene*. When the Ayin Acbaree was written, about 200 years ago, Mundu, (or Mundoo) was the capital of Malwa, and is described as a prodigious city, of 12 cosses, or 22 miles in circuit ; and containing many monuments of ancient magnificence : but when it was visited by Sir Thomas Roe, in 1615, it was then fallen much to decay. It occupied the top of a very large and high mountain : few cities were ever placed in a bolder situation.

Ougein is the present capital of Madajee Sindia ; who, with Tuckajee Holkar, possesses the principal part of Malwa. Holkar's capital is at Indore or Endore, a modern city, which is said to lie about 15 cosses from Ougein, westwards. This is a part of Hin-

dooftan, concerning which, we are but slightly informed; and Sindia wished to keep us in ignorance: for it is said, he expressed a disapprobation of the brigade from Guzerat, taking its route through Ougein, in its way to the Bengal provinces: so that the detachment returned, nearly by the same road as it went, as far as Sirong.

Having now discussed the manner of establishing the *primary stations*, or those principal points, on which the general construction of the geography of the tract under consideration, depends; I shall proceed to give the detail of the manner, in which the intermediate spaces were filled up: but so great a variety of matter offers, that I hardly know where to begin; nor is it a point of much consequence: however, to preserve as much regularity as the subject is capable of, I shall begin on the western side, near Bombay; then go round by the north and east; and finish in the south.

The road from Bombay to Poonah is taken from a MS. map, made during the unfortunate campaign of 1778-9: collated with Mr. Smith's, and General Goddard's. And all the particulars on the west of the Gauts, between Bombay and Surat, are also taken from General Goddard's map.

The road from Poonah to Nussurgur (or Nusserratpour) and round to Soangur, was described by Messieurs Farmer and Stewart, during the time they remained as hostages in the Mahratta camp; and the particulars were obligingly communicated to me by Mr. Farmer. His map ascertains the situations of Casserbarry and Coondabarry Gauts; and, in particular, that of the city of Amednagar, once the capital of the soubah of the same name; but now better known by that of Dowlatabad. This city, which was the residence of the Emperor Aurengzebe, during his conquest of the Deccan and Carnatic, has generally been placed 50 miles to the south-east of its true position.

The road from Nimderrah Gaut to Aurungabad, and back to Bahbelgong, and thence by Chandor and Saler-Mouler, to Noo-
pour;

pour; is from M. Anquetil du Perron. Chandor occurs in Mr. Smith's route; as well as Unkei-Tenki, which we meet with in Tavernier, and helps us to join the routes together.

The south-east part of Guzerat is from a survey taken by order of the Bombay Government, collated with General Goddard's marches; and establishes among other points, that of Brodera, a principal fortress and town, in the north-east part of the tract lying between the rivers Tapti and Myhie: through which the great road leads from Surat to Ougein. Brodera lies in lat. $22^{\circ} 15' 30''$, lon. $73^{\circ} 11'$. The Ayin Acbaree reports that there was an avenue of mango trees, extending the whole way from Brodera to the city of Puttan; which may be 130 miles. The road to Amedabad, is entirely from General Goddard: and the country round about it, as well as the peninsula of Guzerat, owe their present appearance, to a MS. map of Governor Hornby's, communicated by Mr. Dalrymple. This map contains much new matter: and the Ayin Acbaree assists in discriminating the valuable parts of it. In it is found the site of Mahmoodabad; in its turn, the capital of Guzerat, and founded by Sultan Mahmood in the 11th century. The Ayin Acbaree describes the walls of it, as including a vast extent of ground; and speaks of it rather as an existing city, than as a place in ruins. This was in the latter part of the 16th century. Junagur or Chunagur, a city and fortress in the heart of the peninsula, and a subject of Ferishta's history, is likewise found in this map; but Nehlwarrah, one of the ancient capitals of Guzerat, and also the subject of the same history, I cannot trace out by name, either in this map, or in the Ayin Acbaree. I find however, in the latter, some notices respecting a large city in ruins; and whose situation agrees with my ideas of that of Nehlwarrah. It is in the peninsula, at the foot of the mountains of Sironj; and the port of Gogo was dependent on it: whence I conclude by the lights afforded by history, and by its latitude, given by Nasir-Uddin and Ulegbeg, at 22° , that it lies about 30 road miles N W of Gogo.

Many

Many other positions are pointed out, or illustrated, by this map; which, I am informed, is the production of a native of Guzerat. After this account of its author, one might have rested satisfied with its containing a great variety of particulars, although not arranged in geographical order: but it is remarkable, that it gives the form of Guzerat with more accuracy, than most of the European maps can boast.

It does not however, clear up the ambiguity that has long existed, concerning the lower part of the course of the Puddar river: nor am I yet informed whether that river discharges itself into the head of the gulf of Cutch, by one channel; or whether it forms several channels, and discharges itself through the many openings that present themselves, between the head of the gulf of Cutch, and the Indus. One thing only, we are certain of by means of this map; and that is, that one large river (or branch of a river) falls into the head of the gulf of Cutch; and that it appears to be the same river that has its source in the S W part of Agimere, and which is named by Europeans, the Puddar. The river that opens into the head of the gulf of Cutch, is named in the MS. map, *Butlafs*; taking its course by Sirowy, Palhaarpour, and Radunpour (or Radimpour). The Ayin Acbaree does not enumerate among the rivers of Guzerat; or Agimere, either the Puddar, or Butlafs. It is more extraordinary that the Puddar should not be taken notice of, as the Ayin Acbaree describes an extensive tract of low fenny land, on the west of Amedabad, and which was periodically overflowed by the mouth of a river; when that very river is what we name the Puddar. It is certain that the name occurs only in D'Anville. Tavernier takes no notice of it, in his route from Amedabad to Agra, although he must have crossed it. Possibly the word *Puddar*, may be no more than an appellative; or may be the same as *buddar*, or *budda*, in Soane-budda and Ner-budda: and the proper name of the river, Butlafs, might have been omitted.

The

The peninsula of Guzerat is about 200 miles in length, and 140 wide, formed by the Arabian sea (called by the Asiatics, the sea of OMMAN) and the gulfs of Cambay and Cutch; both of which penetrate far within the continent, as the dimensions of the peninsula shew. By the numerous subdivisions of this tract, and more by the sum of its revenue, in the Ayin Acbaree, we are led to consider it as of very great importance, in the opinions of the Moguls. Surat too, that great emporium, situated in its vicinity, had its share in raising the value of the natural products of it, among which, cotton is the staple article. Being a frontier province, as it respects the access by sea, Guzerat contains a greater mixture of races, and a greater variety of religions, than any other province. The Ayin Acbaree says, "From the liberality of his Majesty's (Acbar's) disposition, every sect exercises its particular mode of worship, without molestation." What a happy change since Mahmood, in the 13th century; whose principal delight was the destruction of Hindoo temples! The famous pagoda of Sumnaut, which was destroyed by Mahmood, stood within the peninsula, of which we have been speaking; and its particular site is pointed out by circumstances, in the Ayin Acbaree, and Ferishta. For the former says, "Puttan on the sea shore, is also called Puttan Sumnaut." And the latter, "it was situated upon the shore of the ocean, and is at this time to be seen in the districts of the harbour of Deo (Diu) under the dominion of the idolaters of Europe." This plainly refers to Diu, in the hands of the Portuguese: and the town of Puttan is about 30 miles on the N W of Diu; and on the sea shore.

Although the gulfs of Cambay and Cutch penetrate so deeply within the land, yet so far from rendering the sea smoother, or the navigation safer, they occasion such high and rapid tides, and are so thickly sown with sand banks, that few places are more dangerous. The *Bore*, which means the flood tide rushing in suddenly, and forming a body of water, elevated many feet above the common

mon surface of the sea ; and of course levelling every obstacle that opposes it ; rages here with great violence : covering in an instant the sand banks, which before appeared dry and firm. I have accounted for the terror with which Alexander's followers were struck, at the mouth of the Indus, from this dreadful phenomenon. (See the Introduction).

Capt. Joseph Price, had the misfortune to be carried up to the head of the gulf of Cutch, by pirates, who captured his ship, after a most gallant and obstinate defence, of two days ; but was afterwards treated with great respect and tenderness, and permitted to depart by land, for Bombay. He accordingly traversed the Isthmus, to Gogo ; and reports that the country in that track, is generally flat ; having only a few eminences, and those fortified. The soil is dry and sandy, as is common to Guzerat in general ; for, as the author of the *Ayin Acharee* says, the rain there, does not occasion mud. This may be inferred from the nick-name of *Gberdabad*, or dust-town, bestowed on Amedabad, by Shah Jehan.

The road from Amedabad to Agimere, by Meerta, is chiefly from a map constructed by Col. Call, and communicated by Mr. Hastings. To this I have added Tavernier's particulars of the road, as he travelled this way from Amedabad to Agra. I know not from whence Col. Call had his particulars, but they appear to be perfectly new. Tavernier's distance is enormous, according to the scale of the coss ; but it is to be considered, that the road is very circuitous, and no less mountainous ; so that no rule can well be applied, for reducing the road distance, to a straight line.

The positions of Agimere, Jaepour, and Ougein, have been already discussed, as well as the places situated in the line of Mr. Smith's route. The space included between these points, and which is chiefly situated in the soubah of Agimere, has undergone a very considerable improvement in its geography, since the publication of my last map ; by the contributions of Mr. Hastings, Mr. Bensley, and Col. Popham. I know not who the authors of the several

Several maps in question were; they have, however, my acknowledgments for the assistance I have received from them: and I grieve to reflect, that some of the personages who furnished the most interesting matter towards the improvement of this work, have not lived to be witnesses of the success of their labours. The tract in question, includes among others, the provinces of Cheitore and Oudipour, subject to the Rana or chief Prince among the Rajpoots; and the antiquity of whose house may be gathered, by the name *Rhannæ* appearing in Ptolemy, nearly in its proper position, as a province. The province of Aginere, in general has ever been the country of Rajpoots; that is, the warrior tribe among the Hindoos, and which are noticed, in Arrian, and Diodorus: and Cheitore or Oudipour (which I consider as synonymous) is, I believe, reckoned the first among the Rajpoot states. The whole consists generally of high mountains divided by narrow vallies; or of plains, environed by mountains, accessible only by narrow passes and defiles: in effect, one of the strongest countries in the world; yet having a sufficient extent of arable land: of dimensions equal to the support of a numerous population; and blessed with a mild climate; being between the 24th and 28th degrees of latitude: in short, a country likely to remain for ever in the hands of its present possessors; and to prove the asylum of the Hindoo religion and customs. Notwithstanding the attacks that have been made on it, by the Gazhvide, Pattan, and Megal Emperors, it has never been more than nominally reduced. Some of their fortresses, with which the country abounds, were indeed taken; but THE SPIRITS OF INDEPENDENT NATIONS, DO NOT RESIDE IN FORTRESSES; nor are they to be conquered with them. Accordingly, every war made on these people, even by Aurungzebe, ended in a compromise, or defeat, on the side of the assailants.

Cheitore was the capital of the Rana in the days of his greatness. It was a fortress and city of great extent, situated on a mountain; but has been in ruins since the time of Aurungzebe in 1681: and

had once before experienced a like fate from the hands of Acbar, in 1567. The position of this place is inferred from the account of Sir Thomas Roe, who made it 105 cosses from Mundu, and 51 from Agimere. From this I have been led to place it in lat. $25^{\circ} 21'$, lon. $74^{\circ} 36'$. The different MS. maps, give its position more to the west; and indeed, one of them, so far as to throw it near the great road from Amedabad to Meerta. The cause of this, is a mistake in the difference of longitude between Agra and Guzerat, which has been reckoned too much in these MSS. Cheitore, placed as above, is only about 181 G. miles on the west of Narwah: Mr. Hastings's MS. map, gives this distance at 196; Col. Popham's at 195; Col. Muir's at 193; and a thap of Malwa 231. All but the last, assign it the same parallel as Narwah; while my construction places it 19 minutes more southwardly: the map of Malwa, alone places it 18' south of Narwah. Mr. Hastings's copy agrees with the construction, in making it bear about S S W from Agimere; but shortens the distance about 6 cosses.

Rantampour, a very celebrated fortress in the Indian histories, is situated in the eastern quarter of Agimere, and has its position from the same MSS.: and in the S E quarter of the same soubah, many other noted fortresses and residences of Rajahs, are extracted from the same MSS.; assisted by Col. Camac's tables of routes: such as Kotta, Boondi, Gandhar, Thora, Suifopour, Sandri, Mandelgur, &c. And in Marwar, or the north division of Agimere, Nagore, Bicaner, Catchwana, Didwannah, Sambet, &c. &c. The upper part of the courses of the Churnbul, Sinder, and Sepra rivers, appear now, for the first time, in some sort of detail; though it must be long, e'er the geography of parts so remote from our establishments and influence, can be in any degree correct: and the reader will pardon his being reminded, that the geography we are treating of, includes an extent equal to one half of Europe.

The Ayin Acbaree has furnished some new ideas respecting the division of the soubah of Agimere. It consisted at that time of

three grand divisions, Marwar, Meywar, and Hadowty (or Nagore); and these contained 7 circars or subdivisions, Agimere, Chietore, Rantampour, Joudypour, Sirowy, Nagore, and Beykaner (or Bikaner). Marwar, as including the circar and fortress of Agimere, has grown almost synonymous with Agimere, in common acceptation. The extent of this province as given by the same book, is 168 cossees, or about 320 B. miles, from east to west; and 150 cossees, or 285 B. miles, from N to S: and its extent on the map, justifies this account. Such is the province of the Rajpoots: the grain cultivated there is chiefly of the dry kind; and from the indulgence granted to this tribe throughout India, namely, that of feeding on goat's flesh, we may infer, that the custom originated in this mountainous country. The taxes amounted (in the time of Acbar) to no more than a seventh, or eighth, of the produce of the harvest.

We come next to the Gohud and Narwah provinces, between the Chumbul and Sinde rivers. Much of this tract was described by Mr. Cameron, in a map communicated by the late Col. Camac: but even a province equal to one of the largest English counties, is lost in such a map, as the one under consideration. Beyond this, on the east and south-east, to the Betwah river, is filled up chiefly with Col. Camac's information. Between that river, and the Nerbudda, the Persian book of routes (see page 146) furnishes the road between Callinger and Bilah, and becomes interesting by its leading through Sagur (the *Sageda*, of Ptolemy) a capital fortress and town, situated on a branch of the Cane river, about 55 G. miles to the eastward of Bilah. This route was also translated by Mr. Anderson. It gives only 78 cossees between Pannah (or Purnah, the famous diamond mine of Bundelcound, and supposed to be the *Panassia* of Ptolemy) which, I should apprehend, was a mistake; as the distance on a straight line, is 165 G. miles. Sagur, however, being stated at 25 cossees from Bilah, a known point, does not allow of being far misplaced, by an error in the scale.

Bilsah is placed by a route of Col. Camac's, leading from Sirong to Bopal; and being confined by these points on two sides, and by the routes of Goddard and Smith, on the others; it cannot be far out of its place. Bilsah, which is almost in the heart of India, affords tobacco of the most delicate kind, throughout that whole region; and which is distributed accordingly*.

Chanderee; and other places along the course of the Betwah, are either from Col. Camac's routes, or Col. Muir's map. Chanderee is a very ancient city, and within the province of Malwa. The Ayin Acharee says, "there are 14,000 stone houses in it." It is now, like most of the ancient cities of Hindoostan, fallen into decay; but is still the residence of a principal Rajah. The routes in the central parts of Malwa, are from Col. Muir's map: Hindia, is from Tavernier, supposing it was meant by *Andi*. It is astonishing how he could so far mistake the course of the Nerbudda at that city, as to suppose it ran into the Ganges.

A Hindoo map of *Bundela* or Bundelcund, including generally the tract between the Betwah and Soane rivers, and from the Ganges to the Nerbudda; was obligingly communicated by Mr. Boughton Rouse, who also translated the names in it, from the Persian. This map points out several places that I had not heard of before, and assists in fixing many others of which I had been partially informed.

The country between Mirzapour and the heads of the Soane and Nerbudda, was explored by Major William Bruce, who so eminently distinguished himself at the escalade of Gwalior in 1780†. During

* A difference of opinion seems to have arisen among the learned, whether tobacco came originally from Asia or America. It was possibly indigenous to both continents. It is universally disseminated over Hindoostan, and China; and appears to have been in use so long, in the former, that it is not regarded as a new plant. It is there named *Tumbu-patru*, that is the copper, or copper coloured, leaf.

† The circumstances attending this capture are so very curious, that I cannot help inserting them here, though confessedly out of place. They are extracted from the printed account of Gwalior, which accompanies a beautiful engraved view of that fortress, published in 1784.

"The fortress of Gwalior stands on a vast rock of about 4 miles in length, but narrow, and of unequal breadth; and nearly flat at the top. The sides are so steep as to appear almost perpen-

During his expedition, he verified a fact which, had been long doubted, though strenuously insisted on by the natives, (viz.) that the Soane and Nerbudda rivers had their common source from a pond, or lake, on the southern confines of the Allahabad province. These rivers do literally flow from the same lake; making, con-

perpendicular in every part; for where it was not naturally so, it has been scarped away: and the height from the plain below, is from 200 to 300 feet. The rampart conforms to the edge of the precipice all round; and the only entrance to it, is by steps running up the side of the rock, defended on the side next the country by a wall and bastions, and further guarded by 7 stone gateways at certain distances from each other. The area within is full of noble buildings, reservoirs of water, wells, and cultivated land; so that it is really a little district in itself. At the N. W. foot of the mountain, is the town, pretty large, and well built: the houses all of stone. To have besieged this place, would have been vain; for nothing but a surprise or blockade could have carried it.

A tribe of bandits from the district of Ghazal had been accustomed to rob about this town, and once in the dead of night had climbed up the rock, and got into the fort. This intelligence they had communicated to the Rana, who often thought of availing himself of it, but was fearful of undertaking an enterprise of such moment with his own troops.

At length, he informed Colonel Popham of it, who sent a party of the robbers to conduct some of his own spies to the spot. They accordingly climbed up in the night and found that the guards generally went to sleep after their rounds. Popham now ordered ladders to be made, but with so much secrecy, that until the night of the surprise, a few Officers only knew it. On the 3d of August, 1860, in the evening, a party was ordered to be in readiness to march under the command of Major Bruce; and Popham put himself at the head of 2 battalions which were immediately to follow the storming party. To prevent as much as possible, any noise in approaching or ascending the rock, a kind of shoes of woollen cloth were made for the sepoy, and stuffed with cotton. At 11 o'clock, the whole detachment marched from the camp at Reypour, 8 miles from Gwalior, through unfrequented paths, and reached it a little before day-break. Just as Bruce arrived at the foot of the rock, he saw the lights which accompanied the rounds, moving along the rampart, and heard the centinels cough (the mode of signifying that *All is well*, in an Indian camp, or garrison) which might have damped the spirit of many men, but served only to inspire him with more confidence; as the moment for action, that is, the interval between the passing of the rounds, was now ascertained. Accordingly, when the lights were gone, the wooden ladders were placed against the rock, and one of the robbers first mounted, and returned with an account that the guard was retired to sleep. Lieutenant Cameron, the engineer, next mounted, and tied a rope ladder to the battlements of the wall; this kind of ladder being the only one adapted to the purpose of scaling the wall in a body (the wooden ones only serving to ascend from crag to crag of the rock, and to assist in fixing the rope ladder). When all was ready, Major Bruce, with 20 sepoy grenadiers, ascended without being discovered, and squatted down under the parapet; but before a reinforcement arrived, three of the party had so little recollection as to fire on some of the garrison who happened to be lying asleep near them. This had nearly ruined the whole plan: the garrison were, of course alarmed, and ran in great numbers towards the place; but ignorant of the strength of the assailants (as the men fired on had been killed outright) they suffered themselves to be stopped by the warm fire kept up by the small party of grenadiers, until Colonel Popham himself with a considerable reinforcement came to their aid. The garrison then retreated to the inner buildings, and discharged a few rockets, but soon afterwards retreated precipitately through the gate; while the principal Officers, thus deserted, assembled together in one house, and hung out a white flag. Popham sent an Officer to give them assurances of quarter and protection; and thus, in the space of two hours, this important and astonishing fortress was completely in our possession. We had only 20 men wounded, and none killed. On the side of the enemy, Bapogee, the Mahratta governor was killed, and most of the principal Officers were wounded.

jointly

jointly with the Ganges, an island of the southern part of Hindoostan: and flowing in opposite directions 1500 miles. The course of the Nerbudda river is ascertained, only in certain points where it happens to be crossed by any of the great roads here described: excepting only in the neighbourhood of Broach. All the intermediate parts are drawn from report. It is represented to be as wide at Husingabad Gaut, as the Jumna is at Calpy: but fordable in most places, during the dry season.

We learn from Mr. Ewart that the Soane is named Soane-budda, by the people who live near the upper part of its course; as its sister river is named Nêr-budda. The upper part of the course of the Soane is drawn in the same manner as the Nerbudda is described to be; and the fortress of Bandoo-gur, near it, is from the information of Mr. Ewart.

The *data* for the positions of Nagpour and Ruttunpour, are already given in page 142 and 144, in the discussion of the primary stations. Many roads lead from each of these places; but two only were measured: one from Chittra in Bahar, through Ruttunpour, to Nagpour; the other from Nagpour, through Gurrah, to Rewah and Mirzapour, on the Ganges. The first, by determining several points, such as Surgoojah, Donggong, Kyragur, &c. enabled me to correct some of Col. Camac's estimated routes; and the latter, besides giving the position of Gurrah, the capital of Gurry-Mundella; assisted in settling Mundella, and Deogur. The estimated routes from Nagpour, were to Ellichipour, Burhanpour, Narnalla, Gawile (or Gyalgur) Aurungabad, Jassierabad, Mahur, Notchep-gong, Neermull, Chanda, and Maickdurg; all collected by Mr. Ewart. All these proved very satisfactory; as they corresponded with the distances of the several intervals: and Nagpour being determined with the precision requisite for a general map, there is little doubt but that all the places between Bengal and Bombay, are placed within a few miles of their respective positions: that is, admitting

mitting the longitude of Bombay to be right, in respect of Calcutta.

Besides the routes collected by Mr. Ewart, Mr. Watherstone obligingly communicated his route from Hussingabad Gaut, on the Nerbudda, to Nagpour. He was sent thither on business of the highest political importance, by General Goddard; whose army was then encamped on the banks of the Nerbudda, in the course of its celebrated march across the continent*. His journey pointed out, among other particulars, the source of the Tapti (or Surat river) whose spring is more remote than we had an idea of. It rises at Maltoy, a town situated 42 cosses to the NW of Nagpour: so that its course, is full two thirds of the length of that of the Nerbudda. The distance between Hussingabad and Nagpour, is 100 cosses.

Ellichpour is a fine city, and was anciently the chief city of Berar *proper*; by which I mean to distinguish the province known in the Ayin Acbaree by that name: for our modern acceptance of Berar, includes the whole country between Dowlatabad and Orissa; the eastern part of which, was neither reduced by Acbar, nor even known, in particulars, to the author of the Ayin Acbaree. At present, Ellichpour is the capital of a large province or district, subject to the Nizam; but paying a chout, or nominal fourth part of its revenues, to Nagpour.

Deogur, or Deogire†, was anciently a capital city, and the residence of the Rajah of Goondwanah; or, as he is called in the Ayin

* In justice to General Goddard's memory, I think it incumbent on me to observe that the author of the History of Hyder Ally (published in 1784) though seemingly inclined to compliment him, has depreciated the merits of the undertaking, by over-rating the numbers and quality of General Goddard's troops. M. D. L. T. states the strength of the army at 8000; of which, says he, 1200 were EUROPEANS. The truth is, that the detachment consisted of 103 European commissioned officers, and 6624 native troops of all denominations; and without a single corps of Europeans. In the *return* from whence this was copied, the servants and followers of this little army, amount to no less a number, than 19,779: besides the *bazar* or market people, not included in the return: and these are estimated at 12,000 more: in all, more than 4 followers to each fighting man.

† This must not be confounded with a city of the same name, which stood near the site of Dowlatabad.

Acharee, the Goond Rajah; the Nerbudda being then the southern limit of Hindoostan. This province appears to be one of the most elevated in Hindoostan, seeing that the rivers Tapti, Bain, and Nerbudda, descend from it. Malwa, is unequivocally the highest; for there, the rivers descend in every direction.

Golam Mohamed's routes, being added to those collected by Mr. Ewart, contribute much towards the improvement of the map, in the interval between the measured lines by Mr. Ewart: and before we were favoured with that gentleman's most valuable materials (which entirely supersede the former, as far as they go) Golam Mohamed's contributed largely towards the geography of the country round Nagpore*. These we owed to the late Col. Camac, who to his praise, employed a part of his leisure time, during his command on the western frontier of Bahar, in enquiries concerning the state of politics, government, geography, and nature of the countries included in the abovementioned tract: the geography of which, had till then, been very little known to us.

Sumbulpour or Semilpour, is determined by its reputed distance from Ruttunpour, and from 4 different points in the Bengal survey; from routes collected by Col. Camac. Unluckily, I had placed Sumbulpour in the map, as it now stands, before I had seen Mr. Ewart's papers; by which it appears to be 10 or 11 miles to the south-west of its true position; being in $21^{\circ} 25'$ lat., and $83^{\circ} 40'$ lon.; when it ought to be in $21^{\circ} 34' 30''$, and $83^{\circ} 46' 30''$. Had this new position been established on the same principle as Nagpore and Ruttunpour; that is, mathematically; I should not have scrupled to erase a large portion of the map, to gain so desirable an advantage: but as it yet rests on computed distances, I am content to point out the error in this manner.

* The number of estimated coasts between Burwah and Nagpore, was 196, and from thence to Aurungabad, 163½; total 359½. And the distance on the map is 517½ G. miles; or at the rate of 41,7 coasts to a degree: agreeing with the scale of coasts, within three-tenths of a coast, in a degree.

The distance of Sumbulpour from Ruttunpour, which is hardly affected by the new matter, is by one account 53 coffes; and by another 56: the medium, $54\frac{1}{2}$ coffes, or 78 G. miles, is the distance adopted.

Then, Sumbulpour is from Doefah in Bahar	-	91 coffes
————— Nowagur in Bahar	-	59
————— Raidy in Bahar	-	67
————— Beurah in Bahar	-	41

All these places being nearly in one line of direction from Sumbulpour, admit of a medium being struck between them: and this medium appears to be $66\frac{1}{2}$ from Raidy, or 95 G. miles. The intersection of these lines of distances, from Ruttunpour and Raidy, is nearly at right angles; and they meet as is said above, in lat. $21^{\circ} 34' 30''$, lon. $83^{\circ} 46' 30''$. This position falls out 142 G. miles from Cattack; and Mr. Motte, who traced this road, together with the course of the Mahanada in 1766, made the distance 129: he also reckoned $5\frac{1}{2}$ difference of latitude, and it appears to be $64\frac{1}{2}$.

The lower road from Nagpour to Sumbulpour, through Raipour, is from Golam Mohamed; and the upper, by Dumdah and Sooran-gur, is Mr. Thomas's; communicated by Mr. Ewart. The lower route, which is checked, laterally, by the distance of Raipour from Ruttunpour, points out also the course and navigable part of the Mahanuddy, or Mahanada river. Arung is the furthest point to which it is navigable, from the sea. The upper road crosses the river, near the conflux of the Hutsoo river, which is also navigable, to Dungong. By the deviation of the road between Nagpour and Soonpour, from the true line of direction towards Cattack, it may be inferred that the country on the south of it, is either desert, or in a state of anarchy. We are however, not well informed on this point, but have every reason to suppose it; and the rather, as Mr.

Thomas mentions Dewancole near Soonpour, as a retreat of banditti.

Soorangur, where the roads divide to Sumbulpour, and Soonpour, is the burial place of the late Mr. Eliott; who died on his way from Calcutta to Nagpour, in October 1778. At that crisis, when the fate of the British empire in India, hung suspended by a slender thread, this gentleman was sent by Mr. Hastings, on an embassy to the Court of Nagpour, which at that time, might be said to hold the balance of power, in Hindoostan. Zeal for the public good, prompted him to undertake a service of great personal danger; and which eventually occasioned his death. Mr. Hastings caused a monument to be erected to his memory, on the spot: and also commemorated his early genius and attainments, and no less early death, in some lines, which make part of an imitation of an ode of Horace *. Soorangur is about 270 road miles short of Nagpour, and 470 from Calcutta; and lies out of the direct road.

I observed above, that Sumbulpour is misplaced; and this occasioned an error in all the places between Ruttunpour and Cattack. For the distance between Soorangur and Soonpour is too small; and between the latter and Cattack, too great; the Mahanada not making so deep a winding or elbow, between Boad and Sumbulpour, as Mr. Motte described, and as is represented in the map. Golam Mohamed reckoned only 137 coffes between Nagpour and Sumbulpour: but the construction will not allow of less than 157; which is a mistake not easily to be accounted for.

Boad, a fort near the Mahanada, is said by Col. Camac to be 40 coffes only, from Gumsoar, in the Ganjam district: by construction

* An early death was ELIOTT'S doom,
I saw his op'ning virtues bloom,
And manly sense unfold;
Too soon to fade! I bade the stone,
Record his name 'midst hordes unknown,
Unknowing what it told.

HOR. Book II. Ode xvi.

See the New Annual Register for 1786.

it is 46 ; which difference is probably occasioned by the mistake in the position of Sumbulpour. On the west of Boad, and near the Mahanuddy river, Mr. Thomas passed a town of the name of Beiragur ; which I take to be the place noted in the Ayin Acbaree, as having a diamond mine in its neighbourhood. There is indeed, a mine of more modern date, in the vicinity of Sumbulpour ; but this whole quarter must from very early times have been famous for producing diamonds. Ptolemy's *Adamas* river answers perfectly to the Mahanuddy : and the district *Sabare*, on its banks, is said to abound in diamonds. Although this geographer's map of India, is so exceedingly faulty, in the general form of the whole tract ; yet several parts of it, are descriptive. When we perceive the head of the river just mentioned, placed among the Bundela hills, and Arcot thrust up into the middle of India ; we ought to reflect, that Ptolemy's ideas were collected from the people who sailed along the coast, and who described what they had seen and heard, without regard to what lay beyond it : and moreover, made use of too wide a scale ; as commonly happens when the sphere of knowledge is confined, and the geographer works *ad libitum*, from the coast, towards the interior of an unknown continent. Whoever consults Ptolemy's map of India, should carry these ideas in his mind : that the construction of it is founded on three lines ; one of which, is that of the whole coast, from the gulf of Cambay, round to the Ganges ; a second, the course of the Indus, and the gulfs of Cutch and Cambay ; and the third, the common road from the Panjab to the mouths of the Ganges. The objects within these lines, have a relative dependance on each line respectively ; and are invariably placed at too great a distance within them : it therefore happens, that an object which should have occupied a place near one of the lines, is thrust towards the middle of the map ; and this being a general case, places on opposite sides of India, are crowded together, as Arcot and Sagur (*Sagbeda*) are. At the same time the central parts are wholly omitted ; as being, in reality, unknown. Some

may treat with ridicule, what I have said on the score of PROLEMY ; but a work which has travelled down to us from the second century of our æra, must have possessed something worthy to recommend it, and to keep it alive : and, at least merits an explanation.

Mr. Motte's route along the Mahanuddy, was described from computed distances, and bearings by a compass. He also took the latitude of Sumbulpour, in a rough manner, and made it nearly the same as that of Balasore ; that is, about 21 degrees and a half. The mouths of this river, which form an assemblage of low woody islands, like the Ganges, and many other rivers, have never been traced, but are described from report only. At the mouth of the principal channel, near False Point, is a fortified island, named Cajung, or Codjung.

This brings us into the neighbourhood of the Chilka lake, which bounds the circars (or NORTHERN CIRCARS) on the north. This lake seems the effect of the breach of the sea, over a flat, sandy shore, whose elevation was something above the level of the country within. Pulicat lake appears to have the same origin. Both of them communicate with the sea, by a very narrow but deep opening ; and are shallow within. The Chilka lake is about 40 miles in length from NE to SW ; and in most places 12 or 15 wide ; with a narrow slip of sandy ground, between it and the sea. It has many inhabited islands in it. On the NW it is bounded by a ridge of mountains ; a continuation of that, which extends from the Mahanuddy to the Godavery river ; and shuts up the circars towards the Continent. The Chilka, therefore, forms a pass on each side of it, towards the Cattack province. It is described from the observations of Mr. Cotsford, and of Capt. Campbell : though possibly the extent of it may be somewhat more than is given, towards the north. It affords an agreeable diversity of objects : mountains, islands, and forests ; and an extended surface of water, with boats and small vessels sailing on it. To those who sail at
some

me distance from the coast, it has the appearance of a deep bay, the slip of land not being visible.

The famous pagoda of Jagarnaut, lies a few miles to the eastward of this lake, and close on the sea shore. It is a shapeless mass of building: and no otherwise remarkable, than as one of the first objects of Hindoo veneration; and as an excellent sea mark, on a coast which is perfectly flat, and exhibits a continued sameness; and that in a quarter, where a discriminating object becomes of the highest importance to navigators. It has no claim to great antiquity: and I am led to suppose that it succeeded the temple of Sumnaut in Guzerat; which was destroyed by Mahmood in the 11th century. Possibly the remote situation, and the nature of the country near it, shut up by mountains and deep rivers, might recommend the spot, where Jagarnaut is situated: for we find Orissa was not an early conquest.

The circars are described from various authorities. The construction of the sea coast has already been discussed in the first section. Our possessions in this quarter, extend no where more than 50 B. miles inland; and in some places, not more than 20; between the Chilka lake, and the Godavery river: and between this river and the Kistna, about 70 or 75. So that the circars form a slip of territory, bounded on one side by the sea; and on the other, generally, by a ridge of mountains, that runs nearly parallel to it. Col. Pearse's line, runs entirely through this tract; and may be considered as the foundation, on which a superstructure has been raised, by the labours of many different people. The district round Ganjam, known by the name of Itchapour, and which is one of the divisions of the Cicacole country; is drawn from Mr. Cotterford's very elegant map. The Tickly district, adjoining to it; on the south, is chiefly from Lieut. Cridland's surveys; and extends to Cicacole town (the *Cocala* of Ptolemy). From Cicacole, to Visagapatam, including the country to the foot of the mountains, is taken from an old MS. map of Mr. Dalrymple's: and from
thence

thence to Rajamundry, is taken from a map of Col. Forde's marches, collated with Montresor's large map, at the East India House. It is all along to be understood that Col. Pearse's line (corrected as in page 10) forms the scale of the parts in question. The remaining part of the circars; that is, between the Godavery and Kistna rivers, is chiefly taken from a map of that country, published by Mr. Dalrymple; the ground-work of which is composed of the late Major Stevens's materials. The routes to Joypour and Badrachillum, are on the authority of Mr. Claud Russell; and the position of the latter place, which is very near to the Godavery, accords with Mr. Montresor's idea, as expressed in his large map.

The Godavery river, or Gonga Godowry, (sometimes called the *Gang* in Ferishta's history) was, till very lately, considered as the same with the Cattack river, or Mahanuddy. As we had no authority, that I can find, for supposing it, the opinion must have been taken up, on a supposition that there was no opening between the mouths of the Kistna and Mahanuddy (or Cattack river) of magnitude sufficient for such a river as the Gonga. It could not be for the want of space sufficient for the Cattack river to accumulate in, independent of the Gonga; for the distance is as great from the mouth of the Cattack river to the Berar mountains; as from the mouth of the Godavery to the Baglana mountains. The truth is, that no just account of these rivers, any more than of the Burrampooter, had then reached any European geographer. Succeeding enquiries and discoveries have made it certain, that the Godavery is the river that runs under Rajamundry, and falls into the sea between Coringa and Narapour; and that the Cattack river rises in the Ruttunpour country. But the recent discovery (to Europeans) of the Bain Gonga, whose course is directly across the supposed course of the Gonga, (the name given to this compound river, whose head was the Godavery, and tail the Mahanuddy) clears up at once the ambiguity; if any there could be supposed to remain, after the discussion of the subject in the memoir of the map of 1782. The
Goda-

Godavery has its source about 90 miles to the N E of Bombay; and in the upper part of its course, at least, is esteemed a sacred river by the Hindoos: that is, ablutions performed in its stream, have a religious efficacy superior to those performed in ordinary streams. The Beemah is supposed to have similar virtues: nor are sacred rivers by any means uncommon, in other parts of India. The Godavery, after traversing the Dowlatabad soubah, and the country of Tellingana, from west to east, turns to the south-east; and receiving the Bain Gonga, about 90 miles above the sea, besides many smaller rivers, separates into two principal channels at Rajamundry; and those subdividing again, form altogether several tide harbours, for vessels of moderate burthen. Ingeram, Coringa, Yanam, Bandarmalanka, and Narfapour, are among the places situated at the mouth of this river; which appears to be the most considerable one, between the Ganges and Cape Comorin. Extensive forests of teak trees border on its banks, within the mountains; and supply ship timber for the use of the ports abovementioned: and the manner of launching the ships in those ports, being very singular, I have subjoined an account of it in a note*. The Godavery was traced about 70 miles above its mouth; the rest of its course is described only from report; save only at the conflux of the Bain river, and in places where different roads cross it; un-

* The ship or vessel is built with her keel parallel to the shore; and, as it may happen, from 200 to 300 feet from low water mark. When completed, she is placed on two strong pieces of timber, called *dogs* (in the nature of a sledge of enormous dimensions) and on these, a sort of moveable cradle is constructed, to keep the vessel upright. Two long Palmyra trees, as levers of the second kind, are then applied to the ends of the *dogs*, and by means of these powers, they, together with the vessel that rests on them, are gradually pushed forwards over a platform of logs, until they arrive at the lowest pitch of low water; or as far beyond it, as the levers can be used. Tackles are applied to the ends of the levers, to increase the power: the fulcrums, are wreaths of rope, fastened to the logs on which the vessel slides: and are removed forwards as the advances. Two cables from the land side, are fastened to the vessel, to prevent her from sliding too rapidly; and these are gradually let out, as she advances.

It is commonly the work of two days to transport the vessel to the margin of low water. If the tide does not rise high enough to float her from thence (which it seldom does if the vessel be of any considerable burthen) part of the cradle is taken away, and the ship left chiefly to the support of the cables till high water, when they are suddenly let go, and the vessel falls on her side: and with the fall, disengages herself from the remains of the cradle, and at the same time, plunges into deeper water. A ship of 500 tons has been launched in this manner.

til we arrive at the part where M. Buffy's marches have described it, in common with other particulars.

The course of the Bain Gonga (or Bain river) as I have just observed, is quite a new acquisition to Geography; and we are indebted to the late Col. Camac, for it. This river, which has a course of near 400 miles, was not known to us, even by report, till very lately. It rises near the southern bank of the Nerbudda, and runs southward through the heart of Berar; and afterwards mixes with the Godavery, within the hills that bound our northern circars. This circumstance confutes at once the idea of the Godavery being a continuation of the Cattack river. I cannot find how far up the Bain Gonga is navigable; but it is mentioned as a *very large* river, in the early part of its course; and is probably equal in bulk to the Godavery, when it joins it.

There yet remains in the map, between the known parts of Berar, Golconda, Orissa, and the circars, a void space of near 300 miles in length, and 250 in breadth; nor is it likely ever to be filled up, unless a very great change takes place in the state of European politics in India: for we appear not to have penetrated beyond the first ridge of mountains, till very lately; when the discovery of the black pepper plant was made, in the districts of Rampa.

Beyond the *great* ridge of mountains (which may be 60 or 70 miles inland) and towards Berar, is a very extensive tract of woody and mountainous country, with which the adjacent countries appear to have but little, if any, communication. We may fairly suppose that to be a country void of the goods in general esteem among mankind, that does not tempt either their avarice, or ambition. Although surrounded by people who are in a high degree of civilization, and who abound in useful manufactures, we are told that the few specimens of these miserable people who have appeared in the circars, use no covering but a wisp of straw. We know not, with any degree of certainty, how far this wild country extends within the great ridge of mountains, between the parallels of 17° and

and 20° : but the first civilized people that we hear of beyond them, are the Berar Mahrattas. I think it probable that it may extend 150 miles, or more. However, a party of Berar Mahrattas found their way through this country, and the Bobilee hills, in 1754, (Orme vol. I. page 373) at an opening called Salloregaut, in the Cica-cole circar. Our ignorance respecting this tract may well be accounted for, by its lying out of the line of communication between our settlements; and by its never having been the seat of any war, in which the Europeans have taken part. I suspect, however, that the tract in question, is either too desert, or too savage to be easily or usefully explored.

Between the Godavery and Kistna rivers, and on the north-east of Hyderabad, was the ancient country of Tellingana (or Tilling) of which Warangole (the Arinkill, of Férishhta) was the capital. The site of this capital is still evident, by means of the old ramparts; which is amazingly extensive. A modern fortress is constructed within it; and is in the possession of the Nizam. Col. Peach marched by way of Ellore and Combaniet, to this place, during the war of 1767; and the road was surveyed by Lieutenant, now Major Gardner. His horizontal distance from Ellore to Warangole was 134 G. miles: and the bearing, $W\ 33^{\circ}\ N^*$. A note accompanying Major Stevens's copy of this route, says, that the latitude of Warangole is $17^{\circ}\ 57'$: and this bearing and distance accords with it. I am ignorant of the exact relative positions of Warangole and Hyderabad: Montrefor's map makes the distance between them 45 G. miles. My construction makes it 47, and the bearing of Warangole from Hyderabad N E by N. Montrefor's bearing of Warangole from Ellore, is very faulty; and it is remarkable, that though there are several plans of this road, most of them differ widely, both in bearing and distance. Major Gardner's I apprehend, may be depended on.

* His bearing is corrected by the compass of Col. Pearse's map, from which it differed $2^{\circ}\ 55'$.

The places round Warangole, are taken from a MS. map of Mr. Dalrymple's. Byarem, Culloor, Damapetta, &c. are all from MSS. belonging to the same gentleman.

The road from Hydrabad to Nagpour, was communicated by Mr. John Holland. The distance is stated at 169 cosses; which agrees remarkably well with the interval on the map: and, as Nagpour is a fixed position, we may infer, that Hydrabad ought to be rather in $17^{\circ} 12'$ than $17^{\circ} 24'$ (see page 140). The two places bear nearly N and S from each other; and the whole distance, of course, is difference of latitude. A place named Indelavoy or Endelavoy (Indelvai, in Tavernier, and Thevenot) appears in this route, between the Godavery and Hydrabad: and Thevenot's route from Aurungabad to Hydrabad, falling in there, determines the direction of both roads; and also the positions of Indour, and Sitanagur; the latter being a famous pagoda in that part. Neermul, a city of note, belonging to the Nizam, also rises in this route; and is about 10 G. miles from the north side of the Godavery, and about 132 from Nagpour. Mr. Ewart also collected some routes between Nagpour, Neermul, and Hydrabad: and a route by way of Chanda, appears in Mr. Orme's historical fragments of the Mogul empire. As one of Mr. Ewart's routes gives the position of this Chanda, (a considerable city belonging to Nagpour, and about 70 G. miles to the south of it) we are enabled to lay down this road; which was marched over, by M. Buffy.

Another principal branch of the Godavery, is the Manzorah; a considerable river which rises in the country of Amednagur, and after a circuitous course by Beder, joins the main river below Nander. Many interesting positions arise in the marches of M. Buffy, between Hydrabad and Aurungabad, by the two roads of Beder, and Nander; and no less in the march from Aurungabad to Sanore. Beder is a fortified city, about 80 road miles to the N W of Hydrabad; and was in former times the capital of a considerable kingdom.

The road from Beder to Burhanpour, through Patris and Jaffierabad, is from M. Thevenot. It assists in determining the position of Jaffierabad, a principal town on the N E of Aurungabad. The road from Nander to Nagpour, through Mahur, is partly from M. Buffy, and partly from Mr. Ewart; by whose account Mahur is 78 cosses, but by construction about 87, S W from Nagpour.

The road from Poonah to Beder, is taken from the journal of the late Col. Upton; who returned from his embassy, by the route of Hydrabad, and the circars, to Bengal. His journal has much merit, as being full and descriptive of the countries he passed through; as well as of their respective boundaries: but he was unlucky in estimating his course; and it happens that we have no cross line to correct it.

The road from Aurungabad to Sanore-Bancapour, is taken from the map of M. Buffy's marches: and Sanore was the extreme point of his campaigns, that way. See Orme vol. I p. 425. I could only take the bearing and distance, as I found them in the map: and it is a great defect, that in so considerable an extent, there should be no observation of latitude; that we know of. By the *data*, Sanore is placed in lat. $15^{\circ} 39'$, lon. $75^{\circ} 44'$; or about 117 G. miles E by N from Goa. There is nothing to check this position, from the Malabar side: ~~but~~ even the number of computed cosses from Goa. However, let the matter stand as it may, With respect to the mathematical exactness of the question; had it not been for these marches of M. Buffy (the only monument remaining to the French nation, of their former short-lived influence and power in the Deccan) the geography of these parts, would have been extremely imperfect: but as they extend through more than 4 degrees of latitude, and more than 5 of longitude; they occupy not only the principal part of the Deccan, but by fixing the positions of so many capital places, and intersecting the courses of so many rivers, tend to clear up many other positions.

Vijapour (or properly Bejapour) is not so well ascertained as might be wished. . . . Mandeloe, who travelled the roads himself, says, that it is 80 leagues from Dabul, on the coast of Malabar; and 84 from Goa; which, if meant of French leagues of 3000 paces, with an allowance of one in seven for windings, will give 142 G. miles from Dabul, and 149 from Goa: making Bejapour in lat. $17^{\circ} 26' 30''$, lon. $75^{\circ} 19'$. P. du Val, who formed a map of Mandeloe's routes (a copy of which is in the British Museum) and probably had lights, besides what are furnished by the travels, to guide him; makes the distance between Dabul and Bejapour, greater than between Bejapour and Goa. And this I think likely to be the case, though contrary to what is said in the travels.

Tavernier reckons 85 cosses from Goa to Bejapour (or rather perhaps from Bicholim, the landing place on the continent) or 8 days journey: which 8 days, should be about 144 G. miles on a straight line; and agrees with what is said above. . . . He says also, that from Bejapour to Golconda, the distance is 9 days journey, or 100 cosses more: but this account must be exceedingly vague; because Goa and Golconda are near 230 cosses asunder, by the directest route; and Bejapour lies more than 40 cosses out of the line. Fryer reckons Bejapour 10 days journey from Carwar, or about 180 G. miles. . . . Caesar Frederick agrees with Tavernier in making it 8 days journey from Goa.

The *Lettres Edifiantes* make the latitude of Bejapour $17^{\circ} 30'$. I have placed it in lat. $17^{\circ} 26' 30''$, lon. $75^{\circ} 19'$; that is, 149 G. miles from Goa; 142 from Dabul; 171 from Carwar; and 203 from Golconda. At the same time, I think it probable, that it may not be within 20 miles of its true position. The particulars of the roads leading to it from Dabul and Goa, are from P. du Val's map. . . . Bejapour is a considerable city, and was once the capital of a large kingdom of the same name. It is now in the hands of the Poonah Mahrattas.

The travels of M. Anquetil du Perron from Goa to Poonah, have furnished some useful matter, towards-filling up a part, that has long remained almost a perfect void, in the maps of India. His route crosses that of Mandesloe, described by P. du Val, at a place named Areek or Areg, a few miles from the north bank of the Kistna, and on the road between Dabul and Vissapour; and thus, ~~unfortunately~~ enables us to join his route with Mandesloe's, with some degree of certainty. M. Anquetil speaks of cosses and leagues, as synonymous terms; and reckons $40\frac{1}{2}$ of these from Vaddal, at the western foot of the Gauts, and about 12 cosses (or leagues) S.E. or E.S.E. from Goa, to Areg: and $51\frac{1}{2}$ more from Areg to Poonah. Now the distance from Vaddal to Areg, cannot be supposed less than 100 G. miles of horizontal distance; and from Areg to Poonah nearly the same: so that one can hardly tell how to denominate his itinerary measure, which is about 2 G. miles and a sixth in horizontal measure. On the road from Poonah to Nimderra (in page 138) we have observed the same deviation from the standard of the itinerary measures of the country; for on that road, his cosses turn out exactly 2 G. miles each, on a straight line. It should be a rule for every traveller to use, not only the measures, but the denomination of the country he passes through; for then we are likely to possess a better scale, than his judgment can furnish us with. This will be understood to apply to computed distances only. I have proportional M. Anquetil's distances, as well as I could, consistently with the supposed situation of Areg, in respect of Vissapour; which latter place, was the *primary station* in this case.

His route from Goa to the Kistna, is so far on the ordinary road to Vissapour, by the Ponda Gaut. The route from the crossing place of the Kistna to Poonah, gives a general idea of the upper part of the course of that river, and also points out nearly the situation of Sattarah, the capital of the Mahratta state, during the time of the Rajahs of Sevagee's line. This place appears, by the proportioned

tioned distance of M. Anquetil's route, to be about 38 G. miles (horizontally) nearly S by E from Poonah. A native of this place informed me that Sattarah, was reputed to be 30 coffes (or about 43 G. miles) S E of Poonah. I have no doubt but that M. Anquetil's route may be relied on, for this distance. It is to Mr. Orme's historical fragments before-mentioned, that I am indebted for the knowledge that M. Anquetil's book contained any such matter. I lament exceedingly that he had not a compass with him, with which he might have taken the bearing of the road between Goa and Aurungabad: for in a quarter where geography is so bare of materials, that every notice of the kind is received with avidity, that gentleman had a fair opportunity of distinguishing himself in this way; as he may be said literally to have trod a new path.

The notes to Mr. Orme's historical fragments afford some notices and suggestions, that have been of service to this work. The general situation of Pannela, so much celebrated in the history of Sevagee, is placed conformable to his suggestion, in the same book. I have also followed him, in supposing the Atoni of P. du Val, to be Huttany, once an English factory in the heart of Viliapour. Hubely, another factory, is said by Fryer to be 6 days journey from Carwar, and by his manner of expression, I infer it to be situated on the road to Viliapour. It is in the same place that Fryer says, that Viliapour is 10 days journey from Carwar. Nalderouk, Malkar, Sakkar, Kandjoly, and other places in the Deccan, are also from Mr. Orme's book; which points out the source of the Kistna river to be on the N W of Sattarah, and it cannot be far from it, as the Gauts, or Indian Appenine, lie so close to Sattarah; and the Kistna is known to spring from the east side of that ridge.

Raolconda, a famous diamond mine, is placed in Mr. Montrefor's map, about 15 G. miles to the west of Ralicotte, and 12 from the north bank of the Kistna; but I know not on what authority

Tavernier, who visited Raolconda, gives its distance from Golconda at 17 gos, of 4 French leagues each. Tavernier mentions his crossing a river that formed the common boundary of Golconda and Vissapour, about 4 gos, or more, before he came to Raolconda. This river can be no other than the Beema, which, to this day, forms the eastern boundary of Vissapour; and passes about 80 or 82 G. miles to the west of Golconda, crossing the road from it to Ralicotte: and if we reckon the 82 miles, 13 gos; that is, forming a scale from the distance between Golconda and the river Beemah; each gos will be 6, $\frac{2}{3}$ G. miles in horizontal distance (or nearer 3, than 4 French leagues) and Raolconda will be placed about 25 G. miles on the west of the Beemah; or 15, east of Ralicotte.

* If we take the gos at 4 French leagues, without regarding the proportion arising from the above calculation, it will bring Raolconda very near the situation assigned it by Montresor. But I have nevertheless adopted the former, thinking it, on the whole, the most consistent.

* Caesar Frederick says that the mines (Raolconda) are six days journeys from Bishnagar: but this will apply equally to either of the above positions.

The general course of the Kistna river from the sea to Bézoara, is chiefly taken from Major Stevens's maps, communicated by Mr. Dalrymple. From thence, to Timerycotta is from Montresor, collated with Capt. Davis's sketch of Guntoor, &c. and a French MS. map. From that place to the conflux of the Tungabadra, it is drawn only from report, and in the form it is usually done, in the maps that include its course. From the mouth of the Tungabadra to Gutigui, or Catigui, its course is drawn in a French copy of M. Bussy's marches; and I have corrected it in two places by General Joseph Smith's journal. Above Gutigui, its course is marked in certain places, by the roads that cross it; particularly those travelled by M. Anquetil du Perron: but upon the whole, nothing more than its mere general course is known; except within

70 miles of the sea. General Joseph Smith remarks, that the Kistna was fordable both above and below the conflux of the Beemah river, in the month of March: and that a few miles below the mouth of the Beemah, its bed was 600 yards wide, and exhibited an uncommon appearance, from the number and diversity of the rocks in it.

The Kistna and Godavery rivers, however remote at their fountains, approach within 80 miles of each other, in the lower parts of their course; and form an extensive tract of country, composed of rich vegetable mould, such as is usually found at the mouths of large rivers. Here we behold, on a smaller scale, the same economy that is observable in the agency of the Nile and Ganges, in forming the DELTAS of Egypt and Bengal; by means of the finest particles of earth, that are swept down by those vast rivers, and their branches, in a course of more than 2000 miles. Those who have been on the spot, and reason from analogy, in this case, will readily suppose that the whole, or the greatest part of the tract, included between Saurulcotta and Pettapolly (about 150 miles in length along the sea shore, and from 40 to 50 wide) is in reality, a gift of the two rivers, Godavery and Kistna. The same appearances indeed, may be observed at the mouths of the Carrack and Tanjore rivers; but the two rivers in question, by draining a much greater extent of country (that is, from the 15th to the 21st degree of latitude) have collected materials for a greater quantity of new land. Within this new formed land, and about midway between the Godavery and Kistna, the soil forms a hollow space, which in its lowest part, is a lake at all seasons; and in all the other parts, an extensive inundation, during the season of the periodical rains; being then a lake of 40 or 50 miles in extent. This is called the Colair lake; and its origin may be referred to the same cause, as that which produces the lakes and morasses of the Egyptian and Bengal deltas: which is, that the deposition of mud by the two rivers (on the two branches of one river) at the time when they

they overflow, is greatest near the banks: for the farther the inundation flows from the margin of the river, the more of its earthy particles will be deposited in its way; and the less will remain for the distant parts; which therefore cannot be filled up to the level of the ground, nearest the bank of the river: and thus the ground will acquire the form of an inclined plane, from each river bank towards the interior part of the country, where a hollow space will be left: but it may be expected that when the rivers have raised their banks, and the adjacent country, to the greatest possible height, which is that of the periodical flood (and the ground can be raised no higher) the subsequent inundations will find their way into the hollow space, from the lower part of the river; and will gradually fill up with mud, the part of the lake that lies towards the source of it: And as the new land continues to decrease upon the sea, the lake will travel downwards in the same proportion. For the natural course of things, is, that when the new lands that are the furthest removed from the sea, are raised as high as the agency of the waters will admit, that portion of the mud that cannot be deposited above, is carried lower down to raise other lands; or to lay the foundation of new land, further out: and thus the regular declivity of the channel is preserved. All lands subject to inundations, *must* continue to rise; because the water of the inundation deposits, at least, *some portion* of the earthy particles suspended in it: but there must be a certain point of elevation, beyond which no delta or river bank, can rise, for each successive point in the course of a river, must be lower than the preceding one. As to the Nile, its banks will admit of being raised, throughout the whole Said, as well as lower Egypt, the Cataracts being so much elevated above the lower part of the river: and Egypt also differs in another particular, from India, in that no rain falls there to wash away the light parts of the soil into the river, before the inundation: whereas, the heavy rains of Bengal, previous to the inundation, must reduce the level of the elevated grounds, and

contribute partly towards filling up the hollows; and no small proportion of what is deposited in one season, will be carried lower down, or into the sea. So that the progress of raising the lands, must have been more rapid in Egypt than in any of the moister regions.

It appears to me that the gentlemen who have lately reasoned so ingeniously on the increase of the delta of the Nile, have omitted a circumstance of considerable moment, as it respects the length of the periods required to form given quantities of new land in; or to elevate the old to a certain degree. We never fail to remark on a survey of the naked summits of mountains, that the rain has in a course of ages, washed away the earth that covered them: or in other words, that there is a progressive motion of the finer particles of earth, from the mountains, towards the valleys. Admitting this to be true, and that the stores of fine earth are not inexhaustible; the longer the rivers continue to run, the less quantity of earth they must carry away with them: and therefore, the increase of the deltas, and other alluvions of capital rivers, must have been more rapid in early periods of the world's age, than now.

After this long digression, it would be unpardonable in me to omit an account of a plan proposed by my ingenious friend Mr. John Sullivan: which was, to open a communication at all seasons, between the Colair Lake and its parent river, with a view to the improvement of the adjacent lands (which form a part of the Circars) and of the inland navigation. It appears that an imperfect channel already exists, between the lake and the Godavery river: as well as the traces of an unfinished one, towards the Kistna: and which this gentleman, with great appearance of probability, imputes to a like design having been formed by the natives, in early times. This scheme, which appears to be practicable on easy terms, has never been adopted: the proposal was made early in 1779: and for the particulars, I shall refer to the tract itself, which also contains much information on other subjects.

To return to the subject of the Memoir. The Beemah river is known to be a principal branch of the Kistna, coming from the N.W., and joining it near Edghir. It rises in the mountains, on the north of Poenah, probably not far from the sources of the Godavery; and passes within 30 miles of the east side of Poenah, where it is named *Bajarah*, as well as Beemah; and is also esteemed a sacred river. General Smith crossed this river, when accompanying the Nizam from Hyderabad towards Mysore, in 1766; about 10 miles above its junction with the Kistna, where it was fordable.

The Visapour river is a branch of the Beemah, and is named Mandouah, by Mandelloc.

The mountains named the Gaits, Gattai, or INDIAN APENNINE, and which extend from Cape Comorin to the Tapti, or Surut river; occupy, of course, a part of the tract, whose construction is discussed in this section: but I shall reserve a general account of the Gaits, for the next section; which treats of the peninsula in general, and of the Gaits, as included in it. This celebrated ridge does not terminate in a point or promontory, when it approaches the Tapti; but departing from its meridional course, bends eastward, in a wavy line, parallel to the river; and is afterwards lost among the hills, in the neighbourhood of Burhanpore. In its course along the Tapti, it forms several passes, or descents, (that is, *Gaits*, according to the original import of the word, which means a landing place) towards that river; whence the country into which the passes descend, was originally named Candesh, or the low country. It would appear, that the ridge abates of its great height, after passing the parallel of Bassen, northward; for Mr. Farmer, in his way from Poenah towards Naderbar, observed that the passes had all a descent northward, forming as it were, a series of steps, until he landed in Candesh. He was then a hostage with Madajee Sindia; who at that time led the grand Mahratta army into Guzerat, against General Goddard.

The country inclosed by this head of the Gault, is named Baglani, or Bockiana, and extends the whole way from the Tapti river to Poona. It is mountainous, of course, and contains in it, many strong fortresses. Among these, were Raicee and Jeneahgar, the strong holds of Scavage, in the last century: but I cannot trace out their positions. It is surprising, considering how long the English have had settlements at Bombay and Surat, that there should be no map, or other record, descriptive of the geography of Baglani; or of any part of the tract between Bombay and Aurungabad. The routes of M. Anquetil du Perron, and of Mr. Farmer, together with Mr. Smith's line, have described the roads leading from Poona to Neopour, and Burhanpore: but all on the west of these lines, is a blank, for an extent of 100 miles in width, and 150 in length: even the position of Nabeek-Tranuck, a celebrated place of Hindoo worship, on the NE of Bassen, is not well known; and M. Anquetil du Perron's account of its position, in respect of time spent in his route from Poona to Surat, is not satisfactory. It is situated near the springs of the Godaverry, and they must be on the east side of the Gault, and nearly on a parallel with Bal belonging.

Some general information respecting the situation of the Teek forests, and of the extent of the British conquests in 1780 and 1781, along the western foot of the Gault, between Bassen and Surat, was obligingly communicated by Mr. Hunter of the East India Direction; and by Mr. Holmes. The Teek forests, from whence the marine yard at Bombay is furnished with that excellent species of ship timber, lie along the western side of the Sant mountains, and other contiguous ridges or hills, on the north, and north-east of Bassen: the numerous rivulets that descend from them, affording water carriage for the timber. I cannot close this account without remarking the unpardonable negligence we are guilty of, in delaying to board Teek ships of war for the use of the Indian seas. They might be freighted home, without the ceremony of regular equip-

equipment, as to masts, sails and furniture; which might be calculated just to answer the purpose of the home passage, at the best season: and crews could be provided in India. The letter subjoined in a note, and which was written with the best intentions, 9 or 10 years ago, will explain the circumstances of the case. Teek ships of 40 years old and upwards, are no uncommon objects in the Indian seas: while an European built ship is ruined there, in 5 years. The ships built at Bombay are the best, both in point of workmanship and materials, of any that are constructed in India: and although 3d rates only are mentioned in the letter, there is no doubt but that 3d rates may be constructed: as there is a choice of timber. The Spaniards build capital ships in their foreign settlements. The East India Company have a Teek ship on her fourth voyage, at present; which ship has wintered in England: therefore any objection founded on the effects of frost, on the Teek timber, is done away.

I have been the opportunities I have had, of observing very much the decay of ships built of European timber, &c. in the East Indies: and, on the contrary, how durable the ships are that are built of the wood of that country. Namely, the Teek, which may not improperly be called Indian Oak. The number of ships of all descriptions, which sailed, during the late war (1757 to 1762) may be admitted as a proof of the former remark: and the great age of the first built in India, may serve to prove the latter. When I wrote the letter sent by, for your Lordship, &c. &c. that there is not timber used there, that is constructed in India, and with moderate expense, for the great quantity of ships of European construction can maintain them but a very few years, by which disadvantage, may be easily perceived, if the mean take, the service of the ships that are sent to Europe, &c. &c.

Bengal produces iron and brass, and the neighbouring forests, place and other callings, wanted to bring all done into me, but a fit opportunity, and better encouragement.

August 20, 1773.

SECTION V.

*The Countries contained in that Part of the PENINSULA,
lying in the South of the KISTNA River.*

THIS tract, which in extent is not a fifth part larger than the Bengal provinces; yet, by its political divisions, by the talents and ambition of its Princes, and moreover, by their being stimulated by the different European powers, whose mercantile views led them thither, it has furnished of late years, more matter for speculation and history, than perhaps, all the rest of the Mogul empire put together*. But although it has been the theatre of repeated wars between the Europeans and the natives, as well as between the Europeans themselves; yet so ample a supply of geographical matter has not been supplied, as by the wars and negotiations in the north. The geography of some of the western parts of the peninsula, are as little known to us, as that of the central parts of Hindoostan.

* It is lamentable to a feeling mind to reflect how large a portion of their miseries, the wretched natives of the Carnatic owe to the Spaniards: a ruin from too inefficient protection afforded them, at the commencement of the war of 1780. The saying of the old women in Philip, "By wd longa vida," might well have been applied to the executive government in the Carnatic. Much eloquence has been employed in describing the wretched state of the inhabitants of Bengal; when, in reality, they are to be classed among the happiest nations throughout Asia. Peace did in fact; but a plain tale of war will best describe the sufferings of the hapless inhabitants of the Carnatic, during Hyder's invasion. And how can we refuse a tribute of applause to the character and abilities of the Nobleman, who assumed the government of Madras, at a period when the British interests could hardly be said to have an existence in the Carnatic: Hyder having nearly the entire possession of the whole country. I cannot express my opinion of this Nobleman's character, in a more forcible manner, than by regretting that such shining talents, controlled by a disinterested mind, should not be employed for the benefit of the public.

The figure of this tract is a triangle, of which the course of the Kistna river forms the base, and the coasts of Coromandel and Malabar, the sides. Its extent from the Kistna to Cape Comorin, which forms the apex of the triangle, is about 600 British miles; and its breadth, in the widest part, is about 350.

The construction of the sea coasts, has been already described in the first section; and that of the course of the Kistna river, in the latter part of the fourth.

Madras, or Fort St. George, as has been observed (in page 13) lies in lat. $13^{\circ} 3'$, lon. $80^{\circ} 25'$; and close on the margin of the sea. It is the principal settlement of the British East India Company, on the east side of the peninsula; and is a fortress of very great strength, including within it a regular, well built city. But as it was impossible to fortify and garrison, in an effectual manner, a city of such extent as the political and commercial consequence of Madras, must give birth to; there is a second city, separated from Madras, by the breadth of a proper expanse only; and although near four miles in circuit, is fortified in such a manner, as to prevent a surprise from the enemy's horse; an evil to which every open town in the Carnatic, is subject; from the dryness and overness of the country. Madras was settled by the English about the year 1639, and was hardly defensible, until the destruction of Fort St. David in 1752, pointed out the necessity of it. It is now perhaps, one of the best fortresses in the possession of the British nation; and although not of so regular a design as Fort William, yet from the greater facility of relieving it by sea, and the natural advantages of ground, which leaves the enemy less choice in the manner of conducting his attacks; it may on the whole be deemed at least equal to it.

Madras, in common with all the other European settlements on this coast, has no port for shipping; the coast forming nearly a straight line; and it is also incumbered with a high and dangerous

gerous surf* or wave, that breaks upon it; and induces the necessity of using the boats of the country, to land in. These are of a singular construction; being formed without ribs, or keel; with flat bottoms, and having their planks sewed together: iron being totally excluded throughout the whole fabrick. By this construction, they are rendered flexible enough to elude the effects of the violent shocks which they receive, by the dashing of the waves, or surf, on the beach: and which either oversets, or breaks to pieces, a boat of European construction. No port for large vessels occurs between Triakamaly and the Ganges: that is, in an extent of 15 degrees: so that the comparative proximity of the former, to Madras and Pondicherry, renders it a capital object, both to the English and French.

The Company's lands (or Jaghirs†) extend from Madras to the Pullicate lake, northward; and to Alamparav, southward; and westward, beyond Conjeeveram: that is, about 108 B. miles along shore, and 27 inland; in the widest part. This whole tract hath had a regular survey: and Mr. Pringle, who surveyed the marches of the army under Sir Eyre Coote, during the late war, has ascertained some interesting geographical positions, beyond it; and by this means extended, very considerably, the dimensions of what may be called the surveyed tract; so that we are enabled, with a little adventurous help, to fill up with tolerable accuracy, all the country between the parallel of Pullicate northward, and Cuddalore, southward; bounded on the west, or inland side, by a line drawn from Cuddalore through Arney, Yulort, and Chittoor; and eastward by the sea. The whole of this tract is a triangular space of 106 G. miles in length, by 70 wide. By means also of Mr. Pringle's bearings and measured routes,

* The reader will find in my friend Mr. Markie's very excellent history of Sumatra, an account of the *gale*: a phenomenon which I do not recollect ever to have been discussed in a philosophical manner, in any former treatise. A description will be found in page 28, to 33.

† The term Jaghire means generally, a grant of land from a sovereign to a subject, reckonable at pleasure, but generally for a life rent. The Jaghire in question, I believe, understood to be held in perpetuity. It contains 2440 square miles, and its revenue is reckoned at about 150,000 pagodam.

the positions of Portonovo, Sautgod, and Amboor are obtained; which last may be considered as the westmost point determined with accuracy, any where to the north of Trichinopoly: and Amboor is only one fourth of the whole distance across the peninsula: I cannot find that the road to Colar, was measured, during the campaign of 1767.

Arcot is found to be nearer to Madras than was before supposed. I have fixed it by a series of angles, by means of Wandiwash, Naravaram, and Sholingur hills; and a base, furnished by the Jaghirc map; at 56,6 G. miles, in horizontal distance, from Madras; and about $13^{\circ} 30'$ south of its parallel; whence, its latitude will be $12^{\circ} 51' 30''$, lon. $77^{\circ} 23' 15''$. I do not know that its observed latitude is recorded any where. Mr. Pringle's map makes its distance from Madras 57,9; and M. D'Arville 58,2 in his MS. of positions; and another French MS. map, 59,1.

Arcot is reckoned the capital of the Carnatic; and must be a place of great antiquity, by its being taken notice of by Ptolemy, as the capital of the *Sarcæ*, or *Sarcamandianæ*, from whence corruptly Chero-mandel. It is a pretty large city, and its citadel is esteemed a place of some strength, for an Indian fortress. The defence which it made under Curva, in 1751, established the military fame of that illustrious soldier; whose virtues exposed him to the attacks of enemies, who were better qualified to censure his defects, than to imitate him in the higher parts of his character: to which posterity will do ample justice, when it is placed beyond the reach of the envy of contemporaries: and when his faults will be as little remembered, as the crimes of his enemies.

The position of Velore, is from Mr. Pringle's distance, corrected by the bearing of Sholingur hill. In his map of Coote's campaigns, he has given too much distance between Arcot and Velore: for it is 17 B. miles in the map, and only 13 by the road, in the tables. Also, between Conjeveram and Arcot, the road distance exceeds the

horizontal distance, by three-fourths of a mile only; in 26 miles. These, I apprehend, are mistakes, occasioned by haste.

Velore is a post of great importance, commanding the great road leading into the Carnatic, from the valley of Vaniambaddy, and the directest route from the Mysore country. It consists of three strong forts, on as many hills: and is justly deemed impregnable to an Indian army. It is said to have been originally fortified by the Mahrattas, more than 200 years ago. Among other acts of generalship exhibited by Sir Eyre Coers, during the late war, the relief of this place, in the face of Hyder's whole army, may be reckoned a capital one. It is about 90 miles to the westward of Madras.

Paliconda, had its bearing taken from Velore, and the distance between them, was measured. Amboor is determined by the distance from Paliconda, and the bearing of Coulaigur; which latter is determined by bearings from Velore and Arcot. The distances are obtained by means of Mr. Pringle's table of roads, with allowance for winding. Lastly, Sautgud is placed by angles taken at Amboor and Velore.

These, together with Col. Pearse's line, along the eastern coast of the peninsula, and those before taken notice of in the Southern provinces (in section 3.) are all the measured lines that occur in these parts: together with one, and only one, observation of latitude; that is, at Chirana-Salaharam, about the middle between the two seas. This being the case, it will follow, that the various materials of which the geography of the tract in question is composed, can be no otherwise arranged, than by establishing as *primary stations*, such places as we have the best data for; and which have the greatest number of positions depending on them: and this being done, to adapt the matter to the respective intervals, between these primary stations; which intervals must, of course determine the scales and bearing lines of the several M.D. maps, of which the materials are composed.

I shall

I shall attempt only to give an account of the manner of determining the principal of these stations, or points of connexion; and that for the use of future geographers. To describe the whole, would lead me into unnecessary prolixity. The primary points which it became necessary to describe, in the account of the sea coast, were chiefly from actual measurement; as Titchinopoly, Tanjore, Madura, Palisaudcheny; and I may now add, Caumbetore and Carroor; which are placed by measurement also. Arcot and Amboor, I have just mentioned; and Poliput and Chittoor, are the only remaining ones, that are established by survey.

Of those that remain to be determined, by tiresome discussion, and comparison; and in some cases by mere judgment, founded perhaps on doubtful testimony; are Bangalore, Trinomallee, Darimpoury, Dalmaherry, Coory, Calista, Sam-Iffuram, Innaconda, Combam, Adeui, and Timerycota. And of those furnished by Col. Pearle's march, are Nelloer, Ongole, and Siccacollum.

Bangalore, as the first mentioned, is also the most important; as being in the centre of the peninsula, and having routes passing through it, in every direction. It is in itself, a place of great political importance, being a fortress of strength; and from situation, the bulwark of the Mysore country, towards Arcot. A variety of MS. maps of the country lying to the west of the Carnatic, and between it, and Seringapatam, have appeared: most of them, I believe, the offspring of the war of 1767-8, with Hyder Ally. One of a much later date, communicated by Mr. John Sullivan, contains the whole peninsula, south of the parallel of 15° ; and is particularly valuable, on account of its having many routes and situations in Mysore, and Bednore; as well as in Tanjore and Madura. By its comprehensive nature, it furnishes an opportunity of proportioning the respective distances between Amboor, Bangalore, Seringapatam, Mangalore, and Bednore; as these places all appear in the same map, together with the routes from one to the other. It would require whole sheets to give an analysis of this, and the rest of the MSS. which

have been consulted on this subject, and therefore, I shall only state generally, that by the medium of the distance from Amboor to Bangalore, in 4 maps, it comes out to be 73.6 G. miles; (the variations between them, was 6 miles) and its parallel, according to the same method of proceeding, was $4^{\circ} 10'$ south of Madras, or $13^{\circ} 0' 50''$. To this may be added, that Chinnabalam, is by the medium of the same 4 maps, $23^{\circ} 20'$ to the north of the parallel of Bangalore: and the latitude of the former, which is fortunately preserved in the *Lectres Edificates*, being $15^{\circ} 23'$, confirms the general accuracy of the former result: this being only $1^{\circ} 10'$ different from it; or $12^{\circ} 59' 20''$. Lastly, the interval on Mr. Sullivan's map, between Bangalore and Bednore, is 176 G. miles; and in mine, when Bangalore is placed, as above (73.6 from Amboor; and in lat. 13°) 172.5. And again, the distance between Bangalore and Mangalore in Mr. Sullivan's map, is 176.5; and in mine, 169.5: that is, 7; different in one case, and 5; in the other. And this difference is to be accounted for, by our giving a different degree of width to the peninsula: Mr. Sullivan's map making it $15' 15''$ wider than mine does, in the parallel we are speaking of. I have placed Bangalore in lat. 13° ; and lon. $77^{\circ} 37' 10''$, according to the above data: and this capital point, or *primary station*, being fixed with so much success, to this latitude and longitude, gives some degree of confidence to all the positions round it: for almost every position between Col. Kelly's line on the south, and the Tungabhadra river on the north, has, in its construction, a reference to Bangalore. It is the common point of union, in the centre of the peninsula, as Coimbatore is in the S.W.; and Tritanapoly in the S.E.

Before I proceed to the detail of the remaining primary stations, in the peninsula, I shall observe at once, that all the roads and positions of principal places in the Mysore and Bednore countries, on the west of Bangalore; and between Raydroog and the parallel of Tellicherry, were furnished by the said map of Mr. Sullivan's: and

of which, I believe, there is no other copy in Europe. Chittledroog, Shevagunga, Bankypour, Chennayroypatani, Ananpou, and many others, are quite new; and Sera, Sirrip, Roydroog, Rottin-gery, and Cenapatam, appear much more consistent in their positions, than heretofore: and although we cannot expect that either the positive, or relative distances, should be perfectly exact, yet I have every reason to think that they are not far from the truth; and that in all events, the present map affords the best materials that can be procured in this country.

Seringapatam is placed nearly in the position it occupies in Mr. Sullivan's map, in respect both to Bangalore and Mangalore. Its parallel is very uncertain, as there is no good line of distance, to check it, either from the north, or south. Mr. Sullivan's map places it 99 G. miles to the northward of Coimbatore; and Mr. Montresor's 87.4. As I have adhered more to the account of its relative position, in respect of Bangalore, it stands in the map, only 91 from Coimbatore. Besides, a MS. Itinerary gives its distance from Sera, at 3 days journey, or 54 G. miles horizontal distance; which is perfectly consistent with the 91 miles from Coimbatore. It is placed in lat. $12^{\circ} 31' 45''$, lon. $76^{\circ} 46' 45''$.

Sir George Stanton's journey across the peninsula, from Madras to Mangalore, in 1783, as one of the commissioners for negotiating a treaty of peace with Tippoo Sultan, furnished a list of stages, and the estimated bearings and distances between them, the whole way. These, Sir George most obligingly communicated to me, together with his miscellaneous observations and reflections as he went along; and which, being written on the spot, and dispatched as opportunities offered, may be allowed to exhibit a faithful pic-

* Other accounts are as follows: a large map, which I consider as the first that was constructed from the materials collected during the war of 1767-68, and which may be styled the parent of most of the others, that appear on different scales; gives 99.3 G. miles, west from Kidnaghere; and a north of its parallel. This would place Seringapatam 6' west of its position, in the new map. Montresor's map, gives 66 G. miles from Bangalore, and Mr. Sullivan's, 58½. The first goes 5½ beyond it; the other only 4.

ture of the mind that dictated them : and they afford a proof that a long journey in which many things occurred that usually excite disgust, disappointment, and chagrin (not to mention fatigues and want of comforts) ; may be performed, not only without disturbing the tranquillity of the traveller ; but in such a state of mind, as to leave him a sufficient portion of good humour, to enable him to amuse others.

The commissions were conducted by a very circuitous route, as well as impeded in their journey : for after proceeding on the great road from Anicul towards Seringapatam, in a W S W direction, to Malavilly, within about 12 miles of Seringapatam ; they were carried to the N, and N W, so as to leave the latter place, at least 25 miles to the southward of them. As far as these estimated bearings and distances enable me to judge, the positions of Anicul and Seringapatam, in the map, are too far to the west, by several miles, in respect of Caveripatam ; the last point established in this route, with any degree of certainty. But the route is unfortunately, too crooked, to admit of its being applied as a corrective, in small errors of distance.

Seringapatam is the capital of Myfore, the dominions of Tippoo Sultan ; and it is situated in an island of the Cauvery river, about 250 or 300 miles from Madras. It has little in it worthy of attention. Myfore, a town and fortified post, and as I understand, the ancient capital ; lies about 8 miles to the southward of Seringapatam. Mr. William Townsend, of the East India Company's civil service, who travelled from Onore to Bednore, and Seringapatam, was 11 days in travelling between the two latter places ; which, however, cannot be more than 180 or 190 miles asunder. He represents the whole country he travelled through, as being open and fruitful : nor did he meet with any mountains between the Gaults and Seringapatam.

Dartmouth, Caveripatam, Kishnagherry, and Changamah, are obtained by means of a map of the valley of Vaniambaddy (or the

Barra-

Barra-maul *) which map includes in general all the fortresses contained within the tract usually known by that name. This map is in Mr. Dalrymple's collection, and has much the appearance of general accuracy; the number of forts placed on rocky eminences, in and about it, affording an easy means of determining the relative positions, by triangles. The contents of this map are joined on to Amboor, a *primary station*; and I made no alteration whatever, in its scale or compass. Darampourey, the extreme point in this map, to the S W, being thus obtained, stands more southwardly in respect of Arcot, than most other maps represent it: that is, the interval between Darampourey and Carroor, is less than is commonly reckoned; and that between Darampourey and Colar, less.

Cudapanattam and Vaniambaddy, were *fix* from Amboor rock, and their distances taken from the MS. maps. The roads and places between Cudapanattam and Bangalore; as well as those between this last place and Coudour, and also between Bangalore and Darampourey; are taken from the 4 MS. maps, from whence I have inferred the position of Bangalore: and I consider the places within this tract, to be ascertained with much more precision, than those on the south of Darampourey; and between it and Carroor, and Coimbatore: it being a more confined space, and also much oftener traversed, during the war of 1767. But to recount the particulars, would be both tedious, and useless: as the account would contain nothing more than a comparison of bearings and distances, and the mode of correcting, and working them up, into their present form: the labour of which, although comprised within the compass of a few inches, would scarcely be conceived, or believed. Although most, or all, of the roads that appear in the map, between Darampourey, Attore, Carroor, and Coimbatore, have been marched over,

* The name Barra-maul, or Barra-maul, signifies the *river plain*, was given it because it contained 12 fortresses of some note, (viz.) Kishanghar, Gopadry, Candely, Cangoondi, Vaniambady, Mahanagar, Cochingur, Coontegur, Baringur, Tripatore, Tadeall, and Gigangury.

either by British armies, or their detachments, at different times; yet seldom having a surveyor with them, or by the want of instruments, or leisure, or both; little has been done for geography, more than barely informing us that such roads and places exist. So that the whole country beyond the first ridge of hills from Arcot, and south of the Barra-maul, can be but vaguely described: no one point, as I before observed, having been mathematically determined, on the north of Carroor and Coimbatore; and was it not for the observation of latitude at Chinnai-Balabaram, the position of Bangalore, and all the places dependant on it, would be involved in uncertainty.

The road from Seringapatam to Calicut, is from Col. Humberstone's report; and that from Calicut to Damicotta, is from Jeffries's old map. Of that from Seringapatam to Coimbatore, I have seen several copies; among which there are variations both in the scales, and in the names. Col. Wood went from the Barra-maul to Damicotta, Sattimangulum, and Coimbatore, in the course of his campaign in 1767: but I know not on what authority the road from Damicotta to Mysore, is described.

The determination of the positions in that part of the southern Carnatic, beyond the extent of Mr. Pringle's measured lines, was what interested me particularly: as from its vicinity to a principal settlement, and the scene of much warfare, it may be expected to be a subject of public enquiry. But even here, any more than on the farther side of the mountains, accuracy was not to be attained: for no position was determined mathematically, in the line between Trichinopoly and Velore: nor even a single line measured from the sea to the hills, to determine the breadth of the Carnatic: nor even a series of triangles, although such a succession of tempting marks occur, throughout this whole space. The only particular that presented itself, in the shape of actual measurement, was Mr. Pringle's route from Trichinopoly to Velore: but this was without bearings, save from the top of Tiagar hill, about midway between:

between: and which, from the greatness of the distance, could take in only a part of the line; that is, from Volconda to Trinomally.

Changamah, as has been said before, is placed by the map of the Barra-maul, from the west: and as Trinomally in the Carnatic, is not only very near it, but also an eligible *primary station*, it appeared that if there was any tolerable authority for Trinomally, the operation of fixing it, would at the same time verify Changamah, in respect to the eastern coast: which considering the foundation on which it rested, appeared necessary.

Trinomally hill, which is visible more than 40 G. miles, was found by trigonometrical process (that is, by an angle of intersection of 20 degrees, from the hills of Wandiwash and Carumpaucum) to be 40 G. miles from the former, in the direction of W 28° S. I should not have been entirely satisfied with this result, had not the position thus pointed out, agreed nearly with the apparent situation of Trinomally, in respect of Changamah. This is indeed given by Mr. Sullivan's map, at E 10 N, 13 G. miles; while the bearing of Collispauk from Changamah is N E $20,7^{\circ}$; and that of Trinomally from Collispauk, S 7° W, 12,6 G. miles. Now, as Mr. Pringle measured that side of the triangle between Trinomally and Collispauk, and found it only $11\frac{1}{2}$ G. miles (or 15 B. miles in *road distance*) the side between Changamah and Trinomally, ought to be only $10\frac{1}{2}$; and this I have adopted, with a small correction; as Mr. Pringle's bearing was S 12° W, instead of S 7° W, as in Mr. Sullivan's map: Sir George Staunton, who travelled along that side of the triangle, between Collispauk and Changamah, estimates the road distance at 19 B. miles; which by this construction, ought to be 23 at least.

Trinomally, thus adjusted, is 52 G. miles, on a bearing of about W N W, from Pondicherry (the nearest point on the coast). M. D'Anville thought it no more than 48; and another French MS. map, which contains the southern Carnatic, and which has afforded

me much assistance, only 43 G. miles: but the more modern maps come nearer to my idea; Wersebe reckoning the distance 55, and Mr. Sullivan's map about 50. This station determines the breadth of the southern Carnatic; and also all the positions between Trichinopoly and Velore. It will follow, also, that Tiagar, from whence the bearings of Volconda and Trinomally were taken; as well as Volconda itself; must have an immediate dependence on Trinomally. The position of Volconda, in respect of Trichinopoly, would have been a desirable thing, in order to find how it agreed with the position deduced from Trinomally; but this I could get no good authority for: and Mr. Pringle's bearing ought to have more weight, than mere opinions. I have given the different accounts in a note, but without admitting them as authority*. M. D'Anville's, however, agrees with mine. Baron Wersebe's route, obligingly communicated by the Hon. Col. Cathcart, (his Majesty's Quarter-master General in India) did not appear until the map was engraved. If Wersebe is right, I must have mistaken the position of Volconda; and placed it 7 miles N W by W of its true position. But Mr. Dalrymple, also, took the angles on Tiagar hill, and made the angle of Trinomallee and Volconda, the same as Mr. Pringle did, to 3 minutes of a degree.

Gingee is placed 30, and 32½ G. miles from Pondicherry in 2 French MS. maps; and 36½ in Wersebe's: One might expect that the French knew its position well. I have placed it 33 from Pondicherry; and 23 from Trinomally.

The rest of the positions in the south Carnatic, as well as the courses of the rivers, and direction of the first ridge of hills, are taken chiefly from the 3 MS. maps beforementioned (viz.) D'Anville's, the old French MS. map; and Wersebe's: and some few

* Bearing of Volconda from Trichinopoly, by D'Anville,	N 3° 0' E
By the other French MS. map	N 36° 30' E
By Wersebe	N 25 15 E
By Montrefor	N 28 40 E
It stands in the map	N 37 E

particulars are from an engraved French map of 1771; whose principal merit is confined to the southern part of the Carnatic.

Carnatic-Gur, and Doby-Gur, two fortresses of note, in the ridge of hills on the west of Arnee, have never been taken notice of, in any former map. The latter is determined, as to distance from Velore, by a measured route of Mr. Pringle's: and the former had its bearing taken at Velore, and is known to bear about N by W, 3 miles distant, from the latter: of course, two sides and an angle are given; and the two places mutually assist in determining each others position.

The Coleroone and Cauvery rivers, with their branches, below Caroor, are taken from the maps of Wersebe and Kelly; collated with the old French map. Wersebe's map of Tanjore, contains more particulars than any other that I have seen; especially in the northern part. And for the southern parts, I had some assistance from the map of Mr. Sullivan.

More particulars appear in the Marawar and Madura countries, than in any former map that has been published. After the great roads specified in the discussion of Kelly's map, &c. most of the new matter is from Mr. Dalrymple's collection; and the rest from Wersebe and Sullivan. The almost incredible number of forts and fortresses of various kinds in the Carnatic, occasion a greater number of interesting positions within the same space, than in most other countries. Villages, and even towns, in open countries, are but of a day, compared with fortresses; especially when they derive any portion of strength from their situation; a very common case, here. Public monuments, too, the unequivocal mark of civilization and opulence, are more common here, than in the northern parts of India.

Madura and Tinevelly are chiefly from Col. Call's old map, with many additions from Kelly and Wersebe. The valley of Ootampaliam, inclosed between the branches of the Gauts, is a very recent acquisition to geography. Nor is this the only new matter af-

forded us by Col. Fullarton's march (during the late war) into the southern provinces; the geography of which now wears an entire new face. The intention of this expedition was, to open a communication between the two coasts of Coromandel and Malabar; and at the same time to deprive Hyder Ally of the use of the valuable province of Coimbertore: and, if necessary, to open a ready way into that of Myfore. We learn from him, what will appear a new fact to most readers, that of there being a break in the continuity of the ridge of mountains named the *Gauts*, opposite to Paniany. Governor Hornby it seems was apprised of this circumstance; and probably it was formerly known in Europe, though now forgotten. This *break* is about 16 miles wide, and appears to border on what D'Anville calls *Annamally*, or the *elephant mountains*; and is occupied chiefly by a forest of timber trees, which has the fort of Annamally on the east, and Palicaudcherry on the west. The valley or opening extends 14 or 15 miles, between the termination of the northern Gauts, and the commencement of the southern ones; before it opens finally into the low country on the Malabar coast. It is well known that ships which navigate the Malabar coast, during the N E monsoon, commonly experience a stronger gale in the neighbourhood of Paniany, than elsewhere; and I am of opinion that this opening in the Gauts, is a very sufficient cause for such an effect. I have been told also, that the lower part of the Coimbertore country, partakes of the rainy, or S W monsoon, of the Malabar coast: which may certainly be referred to the same cause.

The river of Paniany takes its course from the Coimbertore country, through this opening; and is said to be navigable in the rainy season, for small boats, to the foot of the Gauts; which is a circumstance worthy of being known, and which I was ignorant of, until I read the life of Hyder Ally, published in France, in 1784. This circumstance, together with the inundated state of the country at that season, may serve to show, that the country

west of the Gauts, has no great declivity, in a course of near 60 miles.

The Paniany river, as well as that of Daraporum, has its source, from an elevated plain, of about 60 miles in extent; and which stretches itself across the eastern mouth of the gap or valley, before spoken of. This plain rises suddenly from the level of the surrounding country, like a vast terrace; and the forest bounds it on the west. There are examples of the same kind of elevated plains in Bengal; and in the Bundela country, south of the Ganges, near Soohagee Gaut.

The common boundaries of the Carnatic, and of Myfore, are tolerably well ascertained in the southern provinces*; and an approximation towards the truth, is made, in those of the Marawars and Tanjore; but on the north of the Cauvery, I believe the boundaries are very ill defined, even by the governing powers themselves; except in particular places.

On the west of the Gauts, and between those mountains and the lakes of Cochin and Travancore, there is nothing new. The country is chiefly one vast forest: and of course, scarcely inhabited, or known, as to particulars.

Tetriore, or Tarriore, a fort possessed by a Rajah of some note, on the north side of the Cauvery, and at the foot of the first ridge of hills; has its position from the authority of the MS. maps abovementioned. They differ, in giving its distance from Tritchinoly, from $22\frac{1}{2}$ to $25\frac{1}{2}$ G. miles: and from Ootatore, from 16 to 17 $\frac{1}{2}$.

Attore, a considerable post on the west of Tiagar, I found some difficulty in placing, from the discordancy of the different accounts: and indeed, the whole tract beyond the first ridge of mountains beyond the Carnatic, is very vaguely described, both in point of par-

* Meaning those on the south of the Cauvery river. And the countries between the Cauvery and Guntoor, are here named *Th. Carnatic*, in a particular sense, and this is again subdivided into N and S as the parts respect Madras.

ticulars, and of geometrical exactness. With respect to Attore, which is the centre of several roads described in the map, I have placed it chiefly on the authority of Mr. Sullivan's map; as it corresponds with the bearing of the mouth of the pass, from Tiagar; as reported by Mr. Pringle. That bearing was $W\ 13^{\circ}\ 11'\ S$; and in Mr. Sullivan's map, it stands $N\ 38\ W$, distant $28\frac{1}{2}$ G. miles from Volconda. It is placed in the map $N\ 39\ W$, $28\frac{1}{2}$ miles: $32\frac{1}{2}$ from Darampoury; and 34 from Salem*.

A route of Baron Wersebe's, from Tritchinopoly to Tiagar; communicated by my friend Col. Cathcart, came to hand after the map was engraved; and therefore too late to enable me to correct Ootatore; whose position, by that gentleman's account, is more northwardly, in respect of Tritchinopoly, than I have placed it. The route in question was not measured, but it being very straight, there could be no difficulty in ascertaining the true bearing of it.

The principal settlements and commercial factories of the Europeans, in the peninsula, are all situated along the coast of the south Carnatic; or, as it is usually termed, the coast of Coromandel. Madras we have already spoken of: the English possess also the fortress and city of Negapatam, situated on the coast of Tanjore; and taken from the Dutch in the late war. It is a neat city, and a place of considerable trade: but more valuable from its local position.

Pondicherry is the principal settlement of the French in the Indian seas. Its general position has been discussed in page 13; and with respect to Madras, it lies to the south, distant 100 road miles; and at the mouth of the Gingee river. It was first settled by the French in 1674; and was then included in the Rajaship of Gingee, subject to the King of Narasinga. Previous to the war of 1756,

* As it may assist some other person, who may undertake to correct this geography, I have inserted the following particulars, collected from different authorities: Mr. Sullivan's map places Attore, $S\ 40^{\circ}\ 30'\ W$, 31 G. miles from Darampoury; and $E\ 10^{\circ}\ 20'\ N$, $29\frac{1}{2}$ from Salem. D'Anville's map of positions, $N\ 37^{\circ}\ 40'\ W$, $24\frac{1}{2}$ from Volconda. And Montrefor, $E\ 42^{\circ}\ 50'\ S$, 18 from Darampoury.

Pondicherry was, perhaps, the finest city in India. It extended along the sea coast about a mile and quarter, and was about three quarters of a mile in breadth : was well built, and contained many public buildings ; and a citadel, then the best of its kind in India, but of too contracted dimensions. This fine city was first taken by the English, in 1761 ; and was immediately razed to the ground, in retaliation of M. Lally's conduct towards the fortifications and buildings of Fort St. David, in 1758. This proceeding of M. Lally, was agreeable to a system adopted by the French East India Company, in Europe : and which had its foundation in commercial jealousy *. However, the consequent destruction of the French settlement of Chandernagore, might have glutted our revenge for the loss of Fort St. David : and we should have been content with dismantling Pondicherry. The French have also factories at Cuddalore, and at Carrical : the former within sight of Pondicherry ; the latter in the Tanjore country. Cuddalore is naturally a very strong situation ; and would have been the most commodious, perhaps, for the chief British settlement ; since the security of Tanjore, and the convenience of supplies from it, must ever be a capital object. Besides, as the S W monsoon is the season of naval warfare, Pondicherry has the advantage of being to windward of Madras ; and the French, at the same instant, accomplish the double purpose of keeping to windward, and of protecting their capital settlement : and receive assistance from it in return. The British fleet, in order to watch the enemy, retires 100 miles from their principal settlement ; and receives only a precarious assistance from the shore : that is, from Cuddalore, or its neighbourhood, their usual station.

The Dutch possess on this coast the towns of Pullicate, Sadras, and Portonovo ; each of which has a small fort to protect it, against the consequences of any desultory irruption, or the quarrels of petty

* If we are to judge of the degree of turpitude of a crime, by the mode of punishing it, rivalry in commerce should be one of the most heinous crimes in nature : for nothing less than the most flagitious, and universal criminality, can authorize the destruction of the habitations, and the consequent dispersion of the inhabitants, of a great city. The fate of Rome might be involved in the existence of Carthage : but the question here, was only which of the two parties should purchase callicoes at the cheapest rate, or sell them at the dearest.

Chiefs : but which could make no stand against a regular army. The Danes have also a settlement of the same kind, at Tranquebar, within the confines of Tanjore.

For an account of the cities of Trichinopoly, Tanjore, Madura, and the stupendous pagodas of Seringham, &c. I shall refer the reader to Mr. Orme's elegant and faithful history of the military transactions of the British nation in Hindoostan.

When we turn to the north of the parallel of Madras, the subject appears to be more barren of matter, of every kind, than in the south : and among the little that does appear, there is a still smaller proportion of actual survey. The Jaghire map, and the marches surveyed by Mr. Pringle, do not extend far to the north of Madras. There is indeed, Col. Pearse's line of march, northward : but this furnishes only an outline ; for it never deviates far from the coast. The matter before us, is confined chiefly to the eastern half of the peninsula ; and the farther we recede from the coast, the more scanty are the materials, and the less to be depended on.

The authorities for the course of the Kistna river, which bounds on the north, the tract which is the subject of this section, will be found at the end of the fourth section : and I shall now proceed to give an account of the authorities on which the remaining primary stations, between the parallel of Madras, and the Kistna, are founded.

On Dalmacherry and Gooty, depend the whole course of the Pennar river, from its source to Cuddapa ; together with all its branches, and the different positions near them ; such as Cuddapa, Tripetty, Chandeghere (or Kandeghere) and Calastri.

There is a diversity of opinion concerning the position of Dalmacherry, as there must ever be, when the distance and bearing of a place, have not been mathematically ascertained. A curious MS. communicated by my friend General Caillaud, entitled, "*An account of the Passes between the parallels of Udegbery and Sautgud,*" and from which I have received great assistance ; has the distances

in computed miles from one pass to another, and oftentimes from some distant capital place also; but without bearings. This MS. gives the distance of Dalmacherry, at 75 British miles of road distance, or about 56 G. miles of horizontal distance, from Arcot. Montresor's map gives 64, and Mr. Sullivan's 61½. Montresor, also, places it 47½, in a N N E direction from Cudapanattum; and Mr. Sullivan 47. I have placed it 56½ from Arcot, in a N N W direction; which makes the interval between it, and Cudapanattum, 46½; and its latitude is $13^{\circ} 43' 30''$. There are three important passes leading from this place, into the Mysoor and Cudapah countries: and here it was that Doast Ally, the Nabob of Arcot, was surprised and defeated by the Mahrattas, in 1740.

Gooty or Gutti, is a strong fortress on a hill, beyond the river Pennar*, and towards Adoni; and formerly the seat of government of Morari Row, a Mahratta Prince. This place, together with the course of the Pennar, is found in Montresor's map; which contains more particulars in this part of it, than any other map I have seen. But a difficulty arose in adjusting the position of Gooty, in my map; because the distance between Dalmacherry and Chinna-Balabaram is much less in it (13 miles) than in Montresor's; and Gooty appears to be ascertained by two lines, drawn from those places: so that either the bearings, or the distances, must be rejected. I thought it the safest way to adhere to the distances: as it is probable they might have more weight, than the bearings had, with Mr. Montresor, who adjusted this circuitous route, between Arcot and the head of the Pennar. His scale gives 112,2 G. miles, on a bearing of N 3.E, from Chinna-Balabaram to Gooty; and 118,5, N $43^{\circ} 45' W$, from Dalmacherry to the same place. The intersection of the bearings (which make an angle of about 40°) would place Gooty in lat. $14^{\circ} 58'$: and that of the distances, in

* Or Pen-aur. I believe the term *aur*, for river, which prevails generally throughout the Carnatic, is not found any further to the north than Nellore.

15° 15'; and nearly in the meridian of Chinna-Balabaram. I have preferred the latter, for the reason abovementioned.

The inferior branches of the Pennar are taken from D'Anville's map of 1752: but Tadameri, Anantpour, &c. are from the Universal History. Gandicotta, on the south bank of the Pennar, is remarkable both as a strong fortress, and for having a diamond mine near it: a particular account of it, will be found in Tavernier. Penuconda a considerable place near the Pennar river, is said to be 20 leagues N E. of Sirpy, and 20 N N W of Chinna-Balabaram. This account, also, is in the Modern Universal History. Cæsar Frederick mentions it as the retreat of the King of Bisnagar (or Narasinga) 8 days journey from Bisnagar.

The Pennar river, after springing from the neighbourhood of the Balabarams, runs directly northward, until it approaches Gooty; and then takes a S E course by Gandicotta and Cuddapah: after which it changes to the east, and reaches the sea at Gangapatnam, after passing the fort of Nellore. The MS. account of the Passes, remarks that this river is 300 yards wide at Sami-Iffuram, about 70 miles from the sea; although it is confined in its course, by hills, on both sides.

It has been observed in the first section, that Capt. Ritchie's chart of the coast of Coromandel, made the point at the Pennar river, project too far out. I find by a reference to 6 different MS. and printed maps of this part, that the distance of the sea from Nellore, is not represented in any of them, at more than 13½ G. miles, and most of them allow only 12. And although I have allowed 16, it comes considerably within Mr. Ritchie's account.

Cuddapah is determined by the map of the Pennar river: and the construction agrees with its reputed distance from Arcot in a *Malabar* map; or rather a map drawn by a native of the Carnatic. It is there stated at 60 cosses; which on the scale adopted for the Carnatic (in page 5) and which allows only 37½ cosses to a degree, will correspond with the 96 G. miles, arising on the construction.

Tripetty

Tripetty and Chandeghere (or Kandegheri) the first a famous place of Hindoo worship; and the latter, the site of the capital of the ancient kingdom of Narfinga, are placed with reference to Dalmacherry, by Montresor's map; and by the MS. account of the Passes. Kandegheri is there said to be 22 B. miles (road measure) from Dalmacherry, bearing about E N E; and Tripetty is 3 miles S E from Kandegheri. I have placed Tripetty accordingly: and it stands in the map $53\frac{1}{2}$ G. miles, nearly north, from Arcot; and about 66, nearly N W by W, from Madras. Mr. Orme supposed it to be 50 miles N E of Arcot: and the Universal History says it is 22 leagues W N W from Madras.

Calastri appears also in the map of Montresor. There is also a route of General Caillaud's from Polypet to Udegheri, and Nellore, passing through Calastri. I have endeavoured to fix the position of Calastri, by these joint authorities; and have placed it 15 G. miles E N E from Tripetty; and 61 from Arcot: but I have my doubts concerning the accuracy of its position.

Sami-Iffuram pass, on the Pennar river, is reckoned in the MS. of the Passes, 55 B. miles, or 44 G. miles horizontal distance, west from Nellore: and this position is corroborated by Montresor's map (as far as the apparent rudeness of his materials for this part, may be said to confirm any position) and I have placed it accordingly. It comes within about 15 G. miles, or $9\frac{1}{2}$ cosses of Cudalaph; which bears from it W S W.

Udegherri and Sangam, two places in General Caillaud's route, are corrected by Col. Pearse's position of Nellore; and by the relative positions of Sydaporum and Nellore, in a French copy of M. Buffu's marches: Sydaporum being also a position in Mr. Caillaud's route. I am conscious how incomplete the northern part of the Carnatic is, in comparison with the southern part: but all my enquiries have produced nothing satisfactory, on the N W of Polipet. Had the route of General Caillaud been measured, it would

have produced several *primary stations*; but as it is, the scale appears to be ill proportioned in the different parts of it.

Narnaveram and Bomrauzepollam, are both placed on the authority of Mr. Pringle's observations: and the Pullicate lake is from the Jaghire map; Col. Pearse's route; and other authorities. This lake, called by D'Anville, *Ericans*, seems to owe its existence to the same cause as the Chilka lake; that is, to the sea's breaking through a low sandy beach, and overflowing the lands within; for its communications with the sea, are extremely narrow, like the *embouchures* of small rivers. This lake is in extent 33 B. miles from N to S, and 11 over, in the broadest part; and contains some large islands within it. One of these is named Ircum, in Mr. Barnard's map of the Jaghire, published by Mr. Dalrymple: and as M. D'Anville names this island, as well as the lake, *Ericans*, I conclude it to be a corruption, or misconception of *Ircum*.

I have not found it an easy task to fix the positions either of Innaconda, Combam, Adoni, or Canoul. On these four places, many others depend, in the construction of the map; and they are neither of them ascertained to my satisfaction. There is, in particular, a degree of obscurity in the accounts of Canoul, that I cannot clear up. My local information fails me entirely, in this place: and this kind of knowledge is so requisite to a geographer, that no degree of study, or investigation, can compensate for the want of it. It not only enables him to reconcile names and situations; but oftentimes furnishes him with a criterion to distinguish the value of his materials. Few Europeans, vagrant ones excepted, have visited these places since the time of M. Buff (1751) and it is a misfortune to geography, that his marches between Arcot, Hydrabad, Adoni, Canoul, and Seringapatam, have not been recorded, in the same intelligent manner, as the rest of his marches have been; and from whence we have drawn so much information. But, however I may repine, as a geographer; I ought, perhaps, as a philosopher, to be satisfied, that so much has been preserved.

Inna-

Innaconda (called also Viniconda, and Huiniconda) is a fortress on a hill; within, or bordering on, the Guntoor circar. It is undetermined, as to its precise bearing, from any known place: therefore I have been reduced to take it on the authority of some vague maps, and by a reference to circumstances: and have placed it about N W by N from Ongole (a point in Col. Pearse's route). Mr. Pringle measured the road, and found the distance to be $46\frac{1}{2}$ B. miles; for which I allow 36 G. miles, in horizontal distance. By the *Malabar* map, it is 28 cosses, which may be reckoned about 45 G. miles. It is somewhat more westerly in bearing, and also more distant, from Medipilli, than from Ongole.

Combam is reckoned 25 cosses from Innaconda; and 32 from Ongole; or about 51 G. miles from the latter. It is placed in the map, at 48 miles distant, and nearly west, from Ongole: but as its parallel is regulated by the assumed position of Innaconda, it is subject, of course, to the same errors. Tavernier's route from Gandicotta to Masherlaw, passed through Combam, (which he calls Kaman) and its position accords very well, with the proportion of distance assigned it. More will be said on this subject, hereafter.

Adoni is reckoned to be 66 cosses from Combam, by the *Malabar* map; and 67 by a route transmitted by Col. Harper to the Madras Government; and which was collected from the information of his guides, while at Innaconda, in 1781. These cosses on the Carnatic scale ($37\frac{1}{2}$ to a degree) are equal to 106 G. miles; and this is the distance allowed in the construction, between Combam and Adoni, westward. And for its parallel, no better authority can be found, than its distance from Gooty, which is situated to the S E of it, two days journey, or 36 G. miles according to my calculation; which is founded on some considerable degree of experience in these matters. Adoni, thus placed, is 63 G. miles N N E from Roydroog, and about 44 south of the Kistna river.

Adoni,

Adoni, as to general position, is about the middle of the peninsula, and exactly in the parallel of Goa. It was, not many years ago, a fine city, and extremely well fortified, situated on the side of one of the branches of the Tungebadra * river; and the capital of a small principality, or rather feudatory province, of Golconda. A part of its history will be found in Mr. Orme's works. It was since assigned, together with Rachore, and Guntoor, to the late Bazalet-Jung, brother to Nizam Ally, the reigning Soubah of the Deccan. Hyder's desperate grasp fixed on this, as well as the rest of the provinces on the south of the Kistna, previous to the late war: but all of them were, or ought to have been, restored by the peace of 1782. Adoni certainly was: because the attack of Adoni, then in the hands of the Nizam, was one of Tippoo's exploits, last year.

The position of Canoul appears the most uncertain of all. The authorities for it, are, the Malabar map, in which its distance from Rachore, Cuddapah, Adoni, and Combam, are given in cosses; but the interfections of these from the different points, do not agree. The map alluded to, is not constructed by a scale, but rudely sketched out without much proportion being observed either in the bearings, or distances of places, from each other: and the names, and the distances between the stages, are written in the Malabar language. Canoul is there said to be 57 cosses from Cuddapah; 38 from Combam; 28 from Rachore; and the same from Adoni: and 36 from Timapet, a place that occurs in General Joseph Smith's route from Hyderabad to Sollapour. By this account, the number of cosses between Cuddapah and Rachore will be 85; which is really the distance on the map, within 2 cosses; reckoning 37½ to a degree. Nor are the cross distances from Com-

* I suppose the termination *badra* in the name of this river, means the same as the *budda* or *buddar* in Nerbudda, and Soanbudda; in the north part of the Deccan, and in Hindoostan. If the supposition be true, that the names of large rivers undergo little alteration, the language to which *Ganga* or *Gang* belonged, must have had a wide range: since we find it applied both in Ceylon, and at the foot of mount Himmaleh.

ham, and from Adoni, far out; but that from Timapet is irreconcilable. However, as the position of it agrees pretty well with Cuddapah, Rachore, and Combam, it may be concluded that the distance of Timapet is falsely given. In a map of M. Buff's southern marches, said to be composed by M. D'Anville; Canoul is represented in a very different position from the above result: for there it stands only 18 cosses from Rachore, instead of 28.

Condanore is 15 cosses to the east of Adoni, according to Col. Harper's route.

Rachore, or Adoni-Rachore, a city, on or near the south bank of the Kistna river, and not far above the conflux of the Tungabdra with it, and below that of the Beemah has its position from the map of M. Buff's northern marches.

Rachore is four days journey from Adoni, according to the report of an European who travelled it. This person came from Seringapatam, by way of Sera and Gooty, to Adoni; and communicated this, and several other particulars in his itinerary, to Mr. W. Townsend; who obligingly gave them to me. It is reckoned three days journey from Seringapatam to Sera (or Merki-Seray) six more to Gooty; two from thence to Adoni; and four more to Rachour. If we take the whole distance through these several points on the map, the produce will be 276 G. miles. A days journey for an ordinary traveller, may be fixed at 22 British miles, in road distance; which reduced to horizontal, will be about 18 G. miles: and it will be found that the 276 miles will be nearly 15 days journey, at that rate: and the intervals are generally well proportioned. Although 22 miles are stated to be a days journey for an ordinary traveller; yet a cossid or courier goes ordinarily from 30 to 33 British miles in a day: and that for many days together.

Timerycotta, a considerable fort in the Palnaud country (which is a district belonging to the Carnatic, but situated towards the Kistna river, on the west of Guntoor) governs most of the positions in Guntoor and Palnaud; as also the crossing place of the Kistna, in
the

the road from Madras to Hydrabad. In Montrefor's map, there are a number of places round Timerycotta; but they have no connexion with any other known place. Capt. Davis, in his account of the places in and about the Guntoor circar, says that Timerycotta is 40 cosses west from Guntoor fort: and Guntoor is placed by the Malabar map 9 cosses from Sattinagram; a place on the south bank of the Kistna, opposite Bezoara; a point ascertained by Major Stevens. The bearing of Guntoor from Sattinagram, we can only infer, from its lying in the direct road to Ongole, to be about S W: but it is strongly corroborated by Montrefor's map, which gives the distance between Guntoor and Siccacollum (another fixed point on the Kistna) at about 25½ G. miles. Timerycotta, then, is placed according to these data, in respect of longitude: and is 89 G. miles to the westward of Siccacollum; or 64 from Guntoor, which answers to 40 Carnatic cosses. With respect to its parallel, the Malabar map gives only a circuitous route of 49 cosses to it from Ongole. Mr. Montrefor's map makes the distance to be 66 G. miles from Ongole; and the bearing about N W by N: but, as I said before, the connexion between these places is imperfect, in his map. Capt. Davis's map (or rather sketch) has it at 57. Again, Montrefor makes Guntoor and Timerycotta, nearly under the same parallel, which would reduce the distance to 59. I have allowed 60½: and have been guided principally by the computed distances in the Malabar map, applied to Capt. Davis's bearings, in his circuitous route from Ongole to Timerycotta: and this position agrees nearly with Montrefor's idea.

Montrefor's map, as is said before, contains many positions round Timerycotta, to the extent of 20 or 30 miles: among others, Currumpoody, Patack, Pongallah, Pulredygur, and Masherlaw or Macherla. This last place, together with Combam and Doupad, from other authorities, helps me to trace out the route of Tavernier from Gandicotta to the Kistna, in his way to Golconda, in 1652. Combam or Commum, is the same with his *Kaman*, said

to be the frontier town of the Carnatic, towards Golconda: Deopad, is what he calls Doupar; situated, according to his account, in a country that is intersected by many torrents from the neighbouring hills. Col. Harper makes the same remark on Doupad or Deopad: and these torrents help to form the river Gondegama (or Gondlacomma) which gains the sea at Medipilly, and is the nominal boundary of the Carnatic. The Malabar map writes it *Gil-ligama*, and other accounts give it *Gunta-camma*: Gondegama, is the common name. Combam is situated near its source. Tripanty pagoda lay near Tavernier's route, and is a few miles to the north of Doupad. Some have confounded this with *Tripetty*, a more celebrated pagoda in the vicinity of Chandeghere; and 160 miles to the southward of Tripanty. Tavernier's next stage is *Mamli*; which may be recognised in D'Anville's map of Coromandel, under the name of *Mamenda*. His Macheli, is, no doubt, Masherlaw: soon after which he arrived at a large river; which was the Kistna. It is singular that his curiosity should not have led him to enquire the name of the most capital river, that occurred during his journey.

Tavernier's route would hardly be worth remarking, did not his distances help to corroborate generally, the positions of Combam, and Timerycotta. He reckons 77 leagues from Gandicotta to Masherlaw: 42 of which are between Gandicotta and Combam. These leagues, I apprehend, are meant for cosses, a common error of Tavernier's: and it is remarkable that Thevenot falls into an absurdity of the same kind, by reckoning cosses for half leagues. How men of sense and reflection can apply the names of the itinerary measures of their own country, to those of another, when the scale differs so widely, I confess I am at a loss to account. Cosses and leagues, differ at least a third part, in their length: how then can Thevenot say, that a coss is equal only to half a league? Tavernier's whole number of leagues from Gandicotta to Golconda, is 119; and the real distance, through the points of Combam, and

Matherlaw, only 176 G. miles : it will follow then, that nothing more than coffes could be meant, and those rather short, than otherwise. Between the Kistna and Golconda, his account gives 39 leagues or coffes, which interval is 60 G. miles, by my construction. There must, however, be an error in the distance between Matherlaw and the Kistna, which he reckons only 3 leagues, or coffes ; whereas, it cannot be less than 7. coffes.

The fort of Condavir is the principal post in the Guntoor circar ; and is strongly situated on a mountain, 8 coffes to the west of Guntoor, according to Capt. Davis ; and 10 from the south bank of the Kistna. The position of Mongelgary, I am not satisfied about, as there are great contradictions in the accounts of it. Colour is from D'Anville : it is a diamond mine on the southern bank of the Kistna, and not far from Condavir. Chintapilly and the roads in Guntoor, are from Capt. Davis's sketch, and the Malabar map.

I could get no better authority for the road from Nellore to Hydrabad, than what appears in D'Anville's *Coromandel*, published in 1753. I have altered the proportion of its parts, by changing the place of Podalah (his Poudela) as it is known to be 12 coffes, nearly W by N from Ongole, instead of the northern position he has given it ; for want of such a check as I was enabled to apply, by being in possession of a route across, from Ongole to Combarn. It is very extraordinary, considering the long intercourse that the English at Madras, have with Hydrabad, that there should be nothing better of the kind, on record.

The road from Udegherrî to Ongole, is also from D'Anville.

Sanore-Bancapour is from M. Buffy's march, as has already been observed, in the fourth section, page 171. Sanore and Bancapour, are two forts, lying about 3 coffes from each other ; at 120 G. miles, nearly east from Goa. Mr. Ewart procured (while at Nagpour) a route from Hydrabad to Sanore-Bancapour, and from thence to Chinaputtun, a city, with a fort of stone ; and situated 37 coffes beyond Bancapour. There is nothing to guide the judgment

ment in determining the general bearing of it, further than that we may conclude it to be to the westward of Sanore-Bancapour, because the road from Hydrabad, leads through it; and as the Sanore river (the Toom) was crossed 9 cosses beyond Bancapour, it may probably bear to the northward of west from it, as the rivers in that part, run to the southward of east (see the map): The distance between Hydrabad and Bancapour (133 cosses) determines the scale of cosses to be at the rate of $39\frac{1}{2}$ to a degree; so that Chinnaputtun is about $56\frac{1}{2}$ G. miles from Sanore-Bancapour; most probably, in a W.N.W direction. We learn one interesting particular, if true, from this route; which is, that the Nizam's territories extend 31 cosses beyond Bancapour.

Bisnagur, or Bijinagur, the capital of the ancient kingdom of Narfinga, is situated near the western bank of the Tungebadra river, and about 30 miles S.E. or S.S.E. from Bancapour. It was visited by Caesar Frederick in 1567; and was then a very large city. He reckons it 8 days journey from Goa, which, by the calculation in page 207, should be 144 G. miles; but it is only 130 by construction. We are told by Ferishta, that Bijinagur was founded by Belaldeo, King of the Carnatic, in 1344. The Carnatic then, included the whole peninsula; or at least, all that lay to the east of the Gauts. Our histories of the Deccan and Carnatic are very imperfect; and at this day we can hardly distinguish between the kingdoms of Bisnagur and Narfinga; and whether they were two successive, or two coexisting kingdoms. It appears probable, however, that in the 16th century, the kingdom of Bisnagur included the greatest part of the peninsula; and that on the invasion of the King of Visiapour, and other northern Princes of the Deccan, the King of Bisnagur retired, first to Penuconda and then to Kandighery (or Chandegheri) but still preserved his ancient title of Bisnagur. In 1599, Kandegheri was the residence of a Hindoo King, whose dominion extended over Tanjore and Madura; and

in 1640, a descendant of this Prince reigned there: and permitted the English to settle at Madrás.

Ranni-Bédalore, as well as the heads of the Tongebadra river, are from M. D'Anville. We know generally, that this river is formed out of several smaller ones, that issue from the eastern side of the Gauts, in and about the Bednore country. Further down, it passes Bijnagar (as is said above, although, Cæsar Frederick calls the river of Bijnagar, Nigonden) and between that and the Kistna, it receives the Hindenny, or Endri river, which passes by Adoni; as well as several smaller rivers. The general course of the Tongebadra is represented in the map of M. Buff's northern marches: and that of the Hindenny is marked more particularly, in the map of his southern marches, by D'Anville. It is also described in the map communicated by Mr. Sullivan, as passing under Chitteldroog, Rydroog, Chitrigally, &c.

M. Buff's route from Seringapatam to Adoni and Rachore is not to be found in the map of his other marches. Those who cast their eyes on that naked part of the map, will regret its being wanting.

The route from Goa to Galgala is from Mr. Dalrymple's collection; and appears to have been travelled by some Portuguese, who visited Aurungzebe's camp on the Kistna, in the latter part of the last century; or early in the present.

The environs of Goa and the country to the foot of the Gauts, are from a Portuguese MS. It is from Goa only, if from any quarter, that we are to expect the geography of the tract between the Gauts, Vissapour, and Adoni; and which yet remains almost a perfect void, in the map.

The general courses of the rivers in the peninsula, indicate that a ridge of high land runs directly across it, from Calastri to Mangalore: but if we are to trust report, the country has not a hilly appearance between the Gauts and Bangalore; but that rising suddenly

denly from the west, at the Gaits, it declines gradually eastward; so that the Gaits form a sort of a terrace on an immense scale.

The Gaits are marked only in certain places where the different roads cross them, or where they have been viewed from the coast. This famous Appenine, which marks, with more precision, perhaps, than any other boundary whatever, the line of summer and winter, or rather of dry and wet; extends 13 degrees of latitude; that is, from Cape Comorin to Surat (with the exception of the gap mentioned in page 196) at unequal distances from the coast: seldom more than 70 miles, and commonly about 40: and within one short space only, it approaches within six miles. Although the altitude of these mountains is unknown, yet it is sufficiently great to prevent the great body of clouds from passing over them; and accordingly, the alternate N E and S W winds (called the monsoons) occasion a rainy season on one side of the mountains only; that is on the windward side. It would appear, though, that clouds enough do pass over, to occasion a rainy season, at a considerable distance to leeward, where those clouds descend: as we may suppose them to do, although at the time they passed over the Gaits, they must necessarily have been too high, and of course too light, to condense and fall in rain, there. This, I am led to consider, by Lieut. Ewart's account of the weather at Nagpour, in the very centre of India; where the seasons differ but little from their usual course in Bengal, and on the western side of India: that is, the S W monsoon occasions a rainy season: but the rains are not so violent, nor of such long continuance, as in those places. At the mouth of the Godavery river and its neighbourhood, the S W monsoon occasions a rainy season also; and the Godavery is then swollen and overflows: and this part is about as far to leeward of the Gaits, as Nagpour is. It is possible, however, that the clouds
which

which occasion a rainy season at the mouth of the Godavery, may come from the east of Cape Comorin: though I rather believe the contrary, as the Cape bears S S W from it, and the reigning winds are much more westerly. The Nagpour clouds, however, must pass over the Gauts. We may, I think, conclude then, that the ridge of the Gauts shelter a particular tract only; beyond which, the light and elevated clouds that pass over it, descend in rain. Madras is within the limits of the sheltered tract, though at least 300 miles to leeward of the Gauts: Rajamundry (near the mouth of the Godavery) and Nagpour, may be about 500. It would be curious to know the exact limit of wet and dry. If I mistake not, until lately it was a general opinion, that the Gauts extended from the northern (or Bootan) mountains to Cape Comorin; and occasioned a diversity of seasons, at one and the same time, throughout all India. But the truth is, that different seasons exist at the same moment, only in a part of the peninsula: for the cause ceases in the parallel of Surat; where the S W wind, no longer opposed by a wall of mountains, carries its supplies of moisture uninterruptedly, both far and near, over the whole face of the country. For some particulars respecting the northern extremity of the Gauts, see page 179.

As the peninsula, or tract discussed in this section, contains more interesting matter than could well be comprised within the space furnished by such a scale, as could conveniently be applied to a general map, of so large a tract as India; it was judged necessary to form another map of the peninsula, on a much larger scale: but an accident has retarded the publication. Those who may hereafter become possessed of it, will find the account of its construction in this Memoir: which is common to both maps, throughout this whole section; and also in the first section, as far as the map of the peninsula is concerned. The scale of this map, is just double that of the general one.

SECTION

SECTION VI.

The Countries between HINDOOSTAN and CHINA.

IT has been said before (page 48) that the first ridge of mountains towards Thibet and Bootan, form the limits of the survey to the north: to which I may now add, that the surveys extend no farther eastward, than to the frontiers of Assam and Meckley.

The Jesuit's map of China, as given in Du Halde, places the western boundary of Yunan (the westmost of the provinces of China) between the 97th and 98th degrees of east longitude, in the parallel of 24° : so that the eastern frontier of Bengal (Silhet) is within 350 British miles of the western part of China; or to speak comparatively, the same distance as Silhet is from Calcutta. Here one is apt to wonder, that considering their proximity to each other, there should be no communication between the two countries. The reasons probably are, that Yunan does not produce such manufactures as are in request among foreigners; and that the courses of the great navigable rivers in those parts, are unfavourable to a communication by water. The space between Bengal and China, is occupied by the province of Meckley, and other districts, subject to the King of Burmah, or Ava.

The river *Nou-Kian*, little, if at all, inferior to the Ganges, runs to the south, through that angle of Yunan which approaches nearest to Bengal; where the Jesuits, who formed the map of China, left it, in its course to the south-west. This river, M. D'Anville conceived to be the same with that of Pegu; in like manner

as he supposed the Sanpoo to be the Ava river: but succeeding accounts have left no doubt remaining, that the Nou-Kian is the river of Ava. In the Modern Universal History (Vol. VI, p. 205) is an account of a voyage performed on this river, by four Chinese, about the middle of the last century. They went from Yunan to Yuntchian, and from thence to the frontiers of Ava; where they embarked, and went down the stream to Ava city.

In my account of the construction of the sea coasts (page 39) my authorities for describing the *delta* of the Ava river from the sea to the parallel of 18° , are given. The Dutch MS. map there quoted, describes the whole course of the river, as high up as the city of Ava itself, which it places in latitude $21^{\circ} 48'$; and also says in a note "*by observation*:" and indeed, the whole scale of the map seems to be formed from the difference of latitude.

The difference of longitude, as inferred from this Dutch map, places Ava in 97° . But Capt. George Baker, of whose accuracy I entertain a high opinion, took the bearings, and estimated the distances, the whole way from Negrais to Ava; and the result, corrected by the observation at Ava, $21^{\circ} 48'$, gives the longitude $97^{\circ} 45'$: and this longitude I have adopted. Capt. Baker's estimation of the courses and distances between Negrais and Ava, placed the latter in lon. $97^{\circ} 54'$, lat. $22^{\circ} 5'$, or $17'$ to the north of the observation, recorded in the Dutch map. This error, on a distance of, about 400 miles, is trifling; being less than a 20th part*. Ava

* Left the particulars from whence the river of Ava &c. is constructed, should be lost, I have recorded them here.

From Negrais to Persaim	NNE $4\frac{1}{2}$	G. miles,	Camma to Meachagong	N by E 20	G. miles.
Pryggee	NNE 45		Mellone	NNE 35	
Head of Negrais river	NE 60		Raynangong	NNE 35	
Lundfey	N 35		Sallumea	N 25	
Saladun	NNW 25		Youngeve	NE by N 25	
Prone	NE 18		Ava	ENE 70	
Camma	N by E 15		Monchaboo	N 45	

The whole traverse gives a course of $N 27^{\circ} 30' E$, distance 408 G. miles. The distance corrected, is 389.

The Dutch map gives a bearing of $N 35^{\circ} 50' W$, distance 36.3 miles, between Syrian river Point (meaning the point of conflux of the Syrian and Dogon rivers) and the head of Negrais river; the upper point of the delta.

stands

stands in the old maps, in lat. $25^{\circ} 20'$, lon. $96^{\circ} 36'$. The particulars of the course of the river, I have taken from the Dutch map; as Capt. Baker describes only the general direction of it.

Monchaboo, a city, and the residence of the King of Burmah, or Ava, in 1755, is by Capt. Baker's account, $38\frac{1}{2}$ G. miles north from Ava: and this was the extreme point of his travels that way.

The Nou-Kian is named Irabatty by the people of Ava; and is said by them, to be navigable from the city of Ava, into Yunan. Monchaboo being within 130 B. miles of the Chinese frontier, we want only so much, to complete the course of the river in the map. This break is there described by dotted lines.

Capt. Baker describes the country bordering on the Ava river, from the sea to Lundsey, as being very flat, and the soil rich; and, I suppose, like that at the lower parts of the courses of the Ganges, Indus, and other capital rivers, formed out of the mud deposited by the inundations of the river. This low tract is named Pegu, and formed an independent kingdom in 1754, when it was reduced by the King of Burmah, to the state of a dependent province.

Burmah borders on Pegu to the north, and occupies both banks of the river, as far as the frontiers of China. On the north-west is Meckley, which we have before taken notice of: and on the west Aracan (or Reccan) and Roshaan. On the east, it has the kingdom or country of Upper Siam; which, Capt. Baker informs us, begins at a small distance eastward from the city of Ava: a ridge of mountains separating it from Burmah and Pegu.

The King of Burmah, whose reputed capital is Ava, and from whence the whole kingdom, though erroneously, is often denominated, is said to possess not only the country of Meckley, in addition to those of Pegu and Burmah; but also the whole tract which lies on the north of it, between China, Thibet, and Assam. Du Halde's map speaks positively, as to this point, but with what

truth I know not, as I have never been able to gain any information on the subject.

Capt. Baker informs us, that the country of Burmah, adjacent to the banks of the Irabattey, or Ava river, between Pegu and Monchaboo, is in some places hilly, and in others flat; but not so low as to suffer inundations. Its produce is, in most respects, nearly the same as that of the countries contiguous to the Ganges; and, it is remarkable, that the lands which produce the greatest quantity of saltpetre, are much about the same distance from the sea, as those of the same nature on the side of the Ganges.

Mr. Verelst, who meditated an expedition into Meckley from Bengal, and actually advanced as far as Cospour on his way to it, in 1763; was informed by his Meckley guides, that after passing the first ridge of mountains beyond Cachar, he would find a fertile and well inhabited country all the way to Ava. He, however, went no farther than Cospour; but the particulars of the road between that place and Ava, are described from the intelligence furnished by the guides who attended him.

The country of Burmah produces some of the best Teak timber in India. The forests which produce this most useful and valuable article, are situated between the western bank of the Ava river, and the country of Aracan; and are only 250 miles from the sea, by the course of the river.

The Sanpoo, or Thibet river, was supposed by M. D'Anville to be the same with that which is called, in the lower part of its course, the river of Ava: but we have not the least doubt at present, of its being the same with the Burrampooter, which enters Bengal on the north-east, and joins the Ganges near the sea. I traced it in 1765, to about 400 miles above the conflux; that is, as high as the latitude of 26° , longitude 91° ; where the Bengal districts end, and those of Assam begin; but I was not permitted to go any higher. However, some few Europeans, engaged in the Goalparah trade, and among others, M. Chevalier, the late Governor

of

of Chandernagore, by permission of the King, went as high up as the capital of Assam, about the year 1762: but was under a considerable degree of restraint, with respect to making remarks, either on the course of the river, or on the country. As M. Chevalier, however, went on a very large embarkation, we are convinced that the river is navigable for large boats, through a space about equal to the distance of Buxar from the sea; that is, between 600 and 700 miles. It may probably be navigable much higher up; though its navigable course cannot be equal to that of the Ganges; this flowing chiefly through a level country, and the Burrampooter through a mountainous one.

I have placed the capital of Assam, Ghergong, (or Kirganu) 160 G. miles nearly E by N from Goalparah, according to the report of the Assamers. They also informed me, that the Burrampooter has a very long course previous to its entering Assam; and that it comes from the N W through the Thibet mountains. Now the Lama's map of Thibet in Du Halde, describes the course of the Sanpoo, to within 120 G. miles of the assumed situation of the capital of Assam: and still nearer to some parts of the Burrampooter that are known, and have been described by the Assamers.

These facts, together with those respecting the Ava river and Nou-Kian, establish (I think) the strongest presumptive proof possible, of the Sanpoo and Burrampooter being one and the same river, under different names: and positive proof can never be obtained, but by actually tracing them; a circumstance unlikely ever to happen to any Europeans, or their dependants. The interval between the known part of the Sanpoo, and that of the Burrampooter, is described in the map by dotted lines. The Ayin Acbarree says that the Burrampooter comes from Khatai: meaning China. We must not forget that the same book says, that the source of the Ganges had never been traced, at that time.

Some difficulty arises in fixing the position of Lassa, the capital of Great Thibet. We have the history of the Lamas' map in

Do-Hallo, which is not altogether favourable to its character; especially in the parts towards the source of the Sanpo and Ganges. A close examination of its particulars, turns out still more unfavourable to it. For instance, the place where the Ganges enters the plains of Hindoostan, is placed under the 28th degree of latitude; though it is, known by our late observations, to be in about 36°. With respect to the longitude, we have no grounds, on which to form an exact comparison; but we may conclude generally, that the distance between Lassa and Hurdwar is near 2 degrees of longitude less than it ought to be: I mean, provided that Lassa be near its true position with respect to Pekin, in the Lamas' map. The difference of longitude between them is 24° 17'; Lassa being placed 91° 40' east from Greenwich.

With respect to Hurdwar, the proof is positive of its being 2 degrees farther to the south than it ought to be; and this furnishes a strong presumptive one, that all the western parts of the map, are faulty in the same proportion: and that the sources of the Ganges and Sanpoo, instead of being between the 29th and 30th degrees of latitude; are several degrees further to the north; and probably between the 32nd and 34th: of which more will be said in the sequel. Nor am I singular in this opinion; for M. D'Anville found it necessary to make an alteration of 2 degrees in latitude; and to adopt the very longitude, which I have suggested. And I should be wanting in candour, and in respect to his memory, should I forbear to do justice to his nice discernment; in placing the entry of the Ganges into Hindoostan, by inference from Delhi, almost in the very spot where I have now placed it, by actual survey.

But M. D'Anville, ignorant of the respective positions of Bengal and Lassa, adopted the latitude of the latter place, given in the Lamas' chart: that is, to say, about 29° 35'. Father Giorgi (Vide Alphabetum Thibetanum) says, the latitude of Lassa is "about

30 degrees and a half; and by what follows, it can hardly be in a lower parallel.

The late Mr. George Bogle, who was sent by the Governor of Bengal (Mr. HASTINGS) on an embassy to the Grand Lama of Thibet in 1774, travelled by way of Coos-Beyhar, Tassafudon, and Paridrong, to Chanmanning, the then residence of the Lama, and nearly in the same parallel of latitude with Lassa. Unfortunately, very little geographical information was furnished by this journey; unless the bare account of the number of days he was on the road between the two last places, may be deemed such. However, this information, such as it is, joined with other circumstances, helps to assure us that Lassa is farther to the north, than the Lama's map represents it: for Tassafudon, the capital of Bootan, is by the accounts of the Bootanais, about 46 G. miles horizontal distance from Luckiduar, in a direction nearly north; and Luckiduar being in $26^{\circ} 56'$, Tassafudon cannot be in less than $27^{\circ} 43'$. Paridrong (called Paridsong in the Lamas' map) is a considerable way beyond that, and may be supposed to be in 28 degrees at least: but the Lamas' map places it in 27° ; making an error of a whole degree of latitude. This place and the chain of mountains near it, have been regarded as the common boundary between Thibet and Bengal: but Mr. Bogle has cleared up this matter, by assuring us that Paridrong is the frontier town of Thibet towards Bootan, and not towards Bengal. And we have before ascertained that Bootan occupies an interval of at least a degree of latitude between Bengal and Thibet. Thibet and Bootan, are often confounded together: the latter is a feudatory or dependency of the former, and borders on Bengal.

Thus, I flatter myself, this discussion respecting the situation of Paridrong, joined to the information of P. Giorgi, will convince the reader, that the latitude of Lassa, if not perfectly right in my map is, at least, nearer the truth than it has usually been represented. Its longitude is taken from the Lamas' map, in which it is reckoned

24° 17' west from Peking, or 91° 40' east from London. Had the bearings and latitudes of Mr. Bogle's route been taken, we should not only have been able to determine the position of Lassa, with some degree of accuracy (as the direction of the road is so much to the north) but also most of the intermediate places. Mr. Bogle was sixteen days on the road from Paridrong to Chanmanning. The distance assigned between these places in the Lamas' map, is about 167 G. miles of horizontal distance: it is about 10 more on the map.

The southernmost ridge of the Bootan mountains, rises near a mile and half perpendicular, above the plains of Bengal, in a horizontal distance of only 15 miles; and from the summit, the astonished traveller looks back on the plains, as on an extensive ocean beneath him. There are not many passes through this ridge, and all are fortified. The fort of Dellamcotta, which commands the principal pass, was taken by storm in 1773, by a detachment under the command of Capt. John Jones; and the fame of this exploit made the Thibetians sue for peace; and was the immediate occasion of Mr. Bogle's embassy. The road between Bengal and Tassafudon, lies chiefly over the summits of stupendous mountains, or along the borders of craggy precipices; so that the direct distance is not easily ascertained, even by the most intelligent traveller.

Between Tassafudon and Paridrong, is a chain of mountains, still higher than the other. They are visible from the plains of Bengal, at the distance of 150 miles, and are commonly covered with snow. These are a continuation of the mountains *Emodus* and *Paropamisus* of the ancients; and are sometimes by the moderns erroneously called *Caucasus*. In the Lamas' map, they are called *Rimola*: and by the people of Hindoostan *Himaleh* (see page 96). I take it for granted that *Himola* or *Himmalch* ought to be substituted for *Rimolah*, in Du Halde's map. I suppose them to be in point of elevation equal to any of the mountains of the old hemisphere. Indeed, the country of Thibet is, altogether, one of the highest in

Asia; it being a part of that elevated tract which gives rise not only to the rivers of India and China, but to those also of Siberia and Tartary: for if we examine the map of Asia, we shall find that most of those capital rivers rise between the 31st and 47th degrees of latitude, and between the 70th and 97th degrees of longitude; from whence they run in every direction to the sea, as the Rhine, Rhone, Danube, and Po, do from the Alps in Europe.

Father Giorgi, whom I have mentioned before, has given us in his *Alphabetum Thibetanum*, an itinerary between Calcutta and Lassa. The distances he estimates in miles, which he probably meant for Italian, although they agree nearly with English ones. For he reckons 284 between Cossimbazar and Patna, which is the exact number of measured statute miles between the two places. And between Singhya and Maissy, he reckoned 40, for 37 measured ones. We may therefore conclude that he was equally fortunate in proportioning the rest of his distances; although the roughness of the road will not always admit of forming any just proportion between the distance by the road, and the horizontal distance. We are almost entirely in the dark as to the particular direction of his course.

Catmandu, the capital of Nepaul, is placed according to the authority of some MS. maps made by some missionaries who travelled from Bettyah to that place: and I found no material disagreement between their accounts and Giorgi's. I have therefore placed Catmandu 105 G. miles nearly north from Maissy, that is, in latitude $28^{\circ} 6'$.

From Catmandu to Lassa, Giorgi reckons 504 miles by the road; but it must be observed that he omits to mention the distances of two stages between Khanfa and Mescinzungh: and as the preceding ones were of 14 and 16 miles, and the two succeeding ones 16 each, I may venture to add 32 miles for the two omissions; and then the whole distance will be 536 B. miles, or 462 G. ones.

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The horizontal distance between Catmandu and Lassa (the latter being placed as described in page 221) is 364 G. miles: so that according to Giorgi's distance, one mile in five, will be taken up by the windings of the road; and this is not improbable, considering the mountainous nature of the country; for in the flat countries of Hindoostan, the proportion is oftentimes 1 in 7.

The territories of Napaul extend to the mountains of Rimola, as they are called in the Lamas' map. Giorgi does not give the modern name of them; but justly concludes that the ancient one was Emodus. These are a continuation of the chain between Tassafudon and Paridrong. Between Catmandu and these mountains, he passed by a famous place of worship, called by him *Noglisocot*, but by the Bengalese, Nogarcot; and which gives name to a pass that leads to it through the Bootan mountains, on the north of Purneah. (There is also a famous place of worship of nearly the same name in the mountains of Lahore.) He also crossed the upper part of the *Kofu*, or *Cofa* river, which takes its course through Purneah, to the Ganges.

Tankia, or Tinkia-ling, is a fortress and town situated at the hither foot of Mount Langur, a second ridge of stupendous mountains, situated about 50 miles beyond Mount Rimola; and said to abound with suffocating exhalations, which increase as you ascend; but are weakest when the mountains are covered with snow. Tankia is the first place in Giorgi's itinerary, that can be recognised in the Lamas' map: for Nialma on the Nitchou river (probably the *Nobotha* of Giorgi) does not agree with any of Giorgi's names, although its situation does with Catmandu; which, however, the Thibetians call Jangba.

About 25 miles beyond Mount Langur, is the beautiful valley of Tingri, said to be 50 miles in length, though but narrow. It is described by Giorgi as an earthly paradise, in every respect save the sharpness of the air.

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The next place of note is Zuenga, or Tzuenga, a castle or fortress on the river Bontsu (supposed by Giorgi to be the *Bantiso* of Ptolemy) and about 90 B. miles from Tankia. From hence two roads lead to Lassa: the northernmost by Sgigatche (or Jieesee as it is called in the Lamas' map) and Rimbu; the other, and which was travelled by Giorgi, is by Kiangsee, or Tchiantse. He speaks of wild horses variously spotted, in great numbers on the banks of the Bontsu. These, I presume, are of the kind that are annually brought for sale into Hindoostan, where they are known by the name of *Tanyans*; and are of a hardy breed.

Kiangse is represented as a fine city and fortress, with a convent near it, which is so very extensive and magnificent, that it has the appearance of another city.

About 50 miles beyond Kiangse, and 3 days journey short of Lassa, is the famous lake Palte, called by the natives Jamdro, or Jangso. It is of so great extent, that according to the report of the natives, it requires eighteen days to walk round it. In the Lamas' map, however, the circumference is only 150 British miles. In the middle of it, there are, according to Giorgi, a continued range of hillocks and islands; or, according to the Lamas' map, one large island, incircled by a lake from 3 to 8 miles wide. On the western shore of this island, or congeries of islands, is a monastery, and the seat of the *Lamissa* * *Turcepamo*, or *The Great Regenerate*: in whom the Tibetians think that a divine spirit is regenerated, as in the Great Lama. The road from Kiangse to Lassa lies along the north side of this lake, a day and half's journey.

Between the lake and the river Sanpoo, which is about 12 miles, another very high ridge of mountains crosses the road. This ridge is named Kambala, and from the top of it may be seen towards the north, a range of still higher mountains, covered with snow.

* Lama signifies a Priest, or Minister of Religion; and *Lamissa* is the feminine of Lama.

The river Sanpoo*, or, according to Giorgi, *Tsangtzu*, or *Tzanga*, is 7 miles from the foot of Mount Kambala; and is crossed in the way to Lassa, about 12 miles farther on, either over a bridge, or in a boat. The bridge, as well as most others in this country, is composed of iron chains stretched from side to side, with planks or logs laid across them.

Giorgi says that the chains are composed of 500 links, each a foot long†. We may conclude that the bridge is laid over the narrowest part they could find, which, by this account, is 160 English yards in breadth; otherwise we might expect a larger body of water in a river that had ran at least 7 or 800 miles; and had received into its bed, so great a number of streams. I compute that at this crossing place, the Sanpoo (which is afterwards called the Burrampooter) has as far to run to meet the sea, as the Ganges has at its first entry on the plains of Hindoostan; that is, about 1350 B. miles.

The city of Lassa is, by the road, about 24 miles to the north-eastward of the crossing place of the Sanpoo; and is situated in a spacious plain. It is not considered as a large city; but the houses are of stone, and are spacious and lofty. The mountain of Putala, which contains on its summit the palace of the grand Lama, the High Priest and Sovereign of Thibet, is about 7 miles on the east of the city.

Much confusion arises from the application of so many different names to this capital of Thibet. Giorgi tells us, that the proper name of it, in the language of Thibet is Baronthala; but that the Tartars call it Lassa, or Lahassa. Other accounts call it Tonker; and apply the names Lassa and Baronthala to the district which contains Tonker and Putala. And again others give the name of Putala instead of Lassa, to the capital of Thibet. But we ought to apply the name Lassa, or Lahassa, to the capital; and to consider

* Sanpoo, in the language of Thibet, means *The River*.

† I take it for granted that he means Italian feet.

Putala as the castle and palace of the Lama, and his ordinary place of residence.

By Thibet, or more properly Great Thibet, we are to understand all that vast country extending from the sources of the Indus to the borders of China; and from Hindoostan, to the great desert of Cobi, northward; though we have but a faint idea of its extent towards that quarter. Its length from east to west cannot be less than 1600 British miles: its breadth is very unequal. We are informed generally that it is divided into three parts; that is, Upper, Middle, and Lower Thibet. The upper division seems to respect the countries towards the sources of the Ganges and Sanpoo rivers: the middle, that in which Lassa is situated, and of which it forms the centre: and the Lower Thibet, that which borders on China. But the subject is obscure, and likely to remain so. I am not informed, whether or not the country called Little Thibet is subject to Lassa: this is situated between Upper Thibet and Cassigur.

Considering the exceeding rough and sterile state of the country of Thibet, and the severity of its climate, from its wonderful elevation, we are astonished to find its inhabitants in a high state of civilization; their houses lofty and built of stone; and the useful manufactures in some degree of improvement. All these advantages they probably owe to their vicinity to the Chinese, to whom, indeed, the Lama is tributary. For an account of Thibet, see Astley's Collection, Vol. IV.; Phil. Trans. Vol. LXVIII.; and the *Alphabetum Thibetanum*.

With respect to the heads of the Ganges and Sanpoo rivers, although they were visited by the Lamas, or priests, sent by the Emperor CAMHI, whose laudable curiosity led him to add these particulars to the geography of Thibet; yet we are far from being well informed, concerning the true positions of these celebrated fountains. A late publication by M. Bernoulli (who has done me too much honour in the course of it) contains among a variety of other matter, a map of the courses of the Ganges and Gogra rivers;

drawn by M. Anquetil du Perron, from the materials of the late P. Tiefentaller. This map is highly interesting, on the score of its containing the course of the Ganges, as high up as the *Gangotri*, or cavern, styled by the Hindoos, the cow's mouth; and which is near 300 miles above the place where the Ganges enters Hindoostan; as well as the course of the Gogra river, to its source, in the western part of Thibet. Unfortunately, no observations appear to have been made for the purpose of determining the latitudes of either of these places; which, on a course approaching to meridional, would have furnished a rule for correcting the distances: those remaining quite problematical, from the circumstance of the route's being very crooked, and passing through a very mountainous country; to which the scale of computed miles cannot be applied, with any degree of certainty. What is yet more against the latter part of the performance (the Gogra river) is, that P. Tiefentaller did not visit the source of it, himself, as he did the Gangotri; but stopt short at a place not far within the Kématon mountains, and took the account of the upper part of its course, from a *native* (of Hindoostan we may presume). The names of places, and remarks, are written in the Persian character, and translated (it appears) by M. Anquetil du Perron.

But notwithstanding any imperfections that may be imputed to the materials, or want of judgment in determining the scale, this map conveys much intelligence respecting the heads of the Ganges and Burrampoote rivers, as well as that of the Gogra; if we employ the lights furnished by Du Halde, in his map of the heads of the Ganges and Sanpoo, to illustrate the subject before us. Let us proceed to the examination of it, without any regard to nicety of scale.

The Gogra or Soorjew river, then, is traced into a lake named *Lanke-Dba*, which has immediately on the east of it, but without communicating with it, a much larger lake, named *Manjarooar*; out of which proceed two rivers, the one to the west, or N W, the

the other to the east, or S.E. Both of these lakes are said to be situated within Thibet; as indeed some of the villages on the bank of the Gogra, much farther to the southward, are. By the construction of M. Anquetil's map, the site of these lakes is carried as high up as the latitude of 36° ; however, by an analysis of the scale, they can hardly be higher than $33^{\frac{1}{2}}^{\circ}$; as will be presently shewn. Now, in the Lamas' map of Thibet, the heads of the Ganges and Sanpoo rivers (which last, is called the Burrampooter, in the lower part of its course) are separated only by a ridge of mountains, named Kentaisse. The head of the Ganges is composed of two streams, which run westward; and the southernmost of these branches runs through two lakes, of which the first is named *Mapana*, and the second *Lanken*. These lakes are placed in respect of each other, as Tiefentaller's are; and the names of the corresponding ones, are Lanke in one, and Lanken in the other account; and *Manfaroar*, and *Mapana*. The names of the latter have certainly no affinity with each other; but the similitude in point of situation, remains. The river that runs from the Lanken lake in Du Halde, is named Lank-thou; and that from the Lanke lake of Tiefentaller, is the Gogra. With regard to the two rivers that issue from the Manfaroar lake of Tiefentaller, that which runs to the west is said to be the Satludj (Sotlege) a river that has been noticed in page 83, as the easternmost of the five Panjab rivers. This particular, however, the author himself discredits, and very justly: and the reader by turning to the map of the heads of the Indus, &c. at page 102, may satisfy himself as to the probability of it. In my opinion, this is the southernmost of the two heads of the Ganges, above noticed; and which is known to run by Dsaprang, or (Chaparang) a considerable city not a very great way to the westward of these lakes (vide Lama's map in Du Halde, or D'Anville's map of Asia). If it be objected that the Ganges is too famous a river to escape the notice of the people who knew the Burrampooter, at its source; I answer, that I do by no means believe that the people

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in Thibet know the Burrampooter, by any other name than that of Sanpoo; and that the word Burrampooter is an interpolation. Indeed the writing in the map, imports only, "it is said that the Burrampooter, &c." and the translation of the Persic writing, at the efflux of this eastern river, gives a very different idea, being "*Grand Rivièrè qui va du côté de Neipal*" (or, Napaul). It is clear, however, that the people have an idea, that the western river has a very long course. I scruple not to believe, that the Lanke lake of Tiefenthaler, is the Lanke of Du Halde; and that the Mansaroar of one, is also the Mapana of the other: and that the circumstances relating to the effluxes of the rivers, which appear to contradict each other, have not been carefully examined into, either by one, or the other party. As the Mansaroar lake is said to be 60 *milles Indiens* (which ought to mean cosies) in circumference, that is, 1.15 B. miles; we can hardly suppose that the native who furnished the account, made the tour of it, either to measure its extent, or to explore the heads of the rivers: and on the other hand, the Lamas sent by CAMHI, might take a great deal of their account on trust. Therefore without contending about the exact circumstances of the case, I have described the Ganges (that is, the southern branch of it) as issuing out of the lake Mansaroar: but have not regarded the eastern river as the Burrampooter, or Sanpoo; because it would be doing too much violence to the account given by the Lamas; which describes the Sanpoo as issuing from the eastern side of Mount Kentaisse, and at least 40 miles from these lakes. Besides, the Lamas give an account of a third lake named Conghé, which intervenes between the Mansaroar lake, and the head of the Sanpoo. If I am mistaken in my conjectures, I cannot mislead others, while the map is accompanied with this discussion. The Lamas' map which appears in Du Halde, places the head of the Ganges in latitude 29° ; and M. D'Anville found it necessary to remove it almost as high as 32° . In the present map, it stands in 33° : all which may serve to shew how vague a performance the

Lamas' map is, which errs $3\frac{1}{2}^{\circ}$ in latitude. It also placed Lassa, which ought to be a well known position to them, a full degree too far to the south.

In the construction of the map of the Gogra, 32 cosses are reckoned to a degree, in a country, the most rugged and mountainous, imaginable; while 42 is the standard in the level country. A distinction, however, must be made in the scale of the upper and lower parts of the course of the river. For, from Mirzapour, which occurs in my map of Oude, to the lake Douloo-Sagur, the country is generally level: and was also explored by Tiefenthaler himself; while the upper part is taken from the reports of a native. Therefore I have allowed 43 cosses to a degree, between those two points; so that the distance will be 98 G. miles, instead of the 131 in the map. Then for the upper part of the river, I have allowed 60 cosses to make a degree, instead of 32: by which the distance from the lake Douloo-Sagur, to the lake Lanke, is only 230 G. miles, instead of the 373 on the map. To those who may object to so great a diminution, as from 60 to 32; I shall observe, that 32, or even 37 $\frac{1}{2}$ cosses to a degree, is a proportion widely different from that which my experience suggests: and which allows 42 in the level country of Hindoostan proper: (see page 5) and whosoever has travelled in very mountainous countries, and has moreover traced the course of a river through it; will not object to the diminishing to 1, what was 1,43 in the plains: for this is the proportion between 60 and 42.

If Tiefenthaler's scale is right, the Lanke lake would be in latitude 36° and upwards; which I consider as highly improbable. It is certain that our best maps of Asia (that is, D'Anville's) present nothing but a blank space, in the part assigned to the heads of these rivers, by M. Anquetil du Perron: and therefore, there is no positive evidence against it.

In ascending this river Gogra we find noted in the map, not far within the first ridge of mountains, and near the second ridge,
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three subterraneous caverns, from whence proceed with violence, fire, wind, and water. No other particulars are given. About 30 miles higher up, the Gogra forces its way through that vast ridge which has been often taken notice of before, under the name of Himmaleh, and which is a branch of the Himaus, or Imaus, of the ancients. This ridge, which is covered with snow, and visible from the plains of Hindoostan; appears to be the general boundary of Thibet, through that whole extent from the Ganges to the Teesta river; inclosing between it, and Hindoostan, a tract of country, from 100 to 180 miles in breadth; divided into a number of small states, none of which are understood to be either tributaries or feudatories of Thibet: such as Sirinagur, Almora, Kemaon, Gorha, Napaul, and Morung. Bootan, a feudatory of Thibet, closes on the east of this tract; and is the extent of our knowledge, as to particulars, that way.

The small number of towns and villages on the banks of this river, induces one to suppose that the western part of Thibet, is no better inhabited than we have before described the eastern part of it to be. Indian names prevail, even within Thibet; and a temple of Mahadeo is found on the banks of the Mansaroar lake.

We have before stated the distance of the cow's mouth, or Gangotri, to be about 280 or 300 road miles, above Hurdwar; where the Ganges enters the plains of Hindoostan. As the compass of Tiesentaller's map of the Ganges, declines 12 degrees more to the westward of north, than that of the survey does, between Allahabad and Hurdwar; this allowance is made accordingly: and Tiesentaller's distance exceeds that of the survey, within the same space, which is 331 G. miles, about $\frac{1}{3}$ of the whole. Not being absolutely certain whether or not Tiesentaller took the latitude of Gangotri, I did not venture to alter the parallel in which he has placed it, 33° : but contented myself with correcting the bearing 12 degrees; thereby shortening the distance, which was originally 240 miles, to 227. If the latitude was not taken, by celestial observa-

observation, but the distance calculated on the scale of 37½ cosies to a degree, the Gangotri will still be placed too far to the north.

To sum up the whole information, collected from the different accounts of the upper part of the course of the Ganges, it appears that the two branches of it, which spring from the western side of Mount Kentaïsse, take their course westward, inclining considerably to the north, for a course of about 300 miles, in direct distance; when meeting the great chain or ridge of Mount Himmaleh, which extends from Cabul along the north of Hindoestan, and through Thiber, the rivers are compelled to turn to the south; in which course they unite their waters, and form what is properly termed the river Ganges. This great body of water now forces a passage *through* the ridge of Mount Himmaleh, at the distance, possibly, of 100 miles below the place of its first approach to it, and *sapping* its very foundations, rushes through a cavern, and precipitates itself into a vast basin which it has worn in the rock, at the hither foot of the mountains. The Ganges thus appears, to incurious spectators, to derive its original springs from this chain of mountains: and the mind of superstition has given to the mouth of the cavern, the form of the head of a cow; an animal held by the Hindoos, in a degree of veneration, almost equal to that, in which the Egyptians of old, held their god Apis.

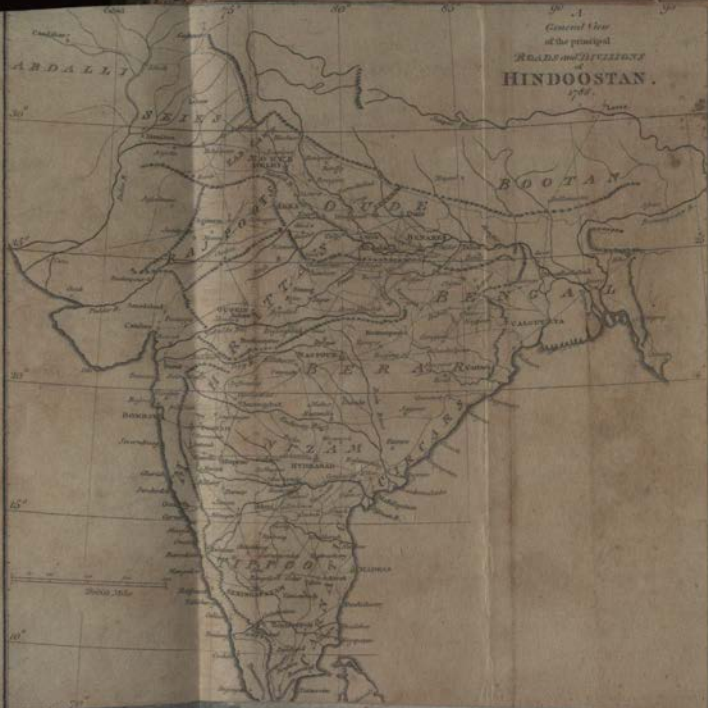
From this second source (as it may be termed) of the Ganges, its course becomes more eastwardly than before, through the rugged country of Sirinagur; until, at Hurdwar, it finally escapes from the mountainous tract, in which it has wandered for about 800 B. miles. At Hurdwar, it opens itself a passage through Mount Sewalick; which is the chain of mountains that borders on the level country, on the north of the province of Delhi. Even Sewalick would be deemed a lofty ridge, but for the presence of Mount Himmaleh, or *Imaus*; which rises behind it, when viewed from the plains of Hindoestan.

It may truly be said that the knowledge of the origin of the Ganges was reserved for the present age: for it was as late as the year 1717, that the Emperor CAMHI, sent persons to explore it, and to bring some of its water back with them to Pekin, a journey of about 2500 B. miles from the head of the Ganges. Until the result of this expedition was known in Europe, it was believed, on the faith of the Hindoos, that the springs of the Ganges, were at the foot of Mount Himmaleh.

A circumstance attending the courses of the Ganges and Burram-pooter rivers, in respect to each other, is remarkably singular. Issuing from opposite sides of the same ridge of mountains, they direct their courses towards opposite quarters, till they are more than 1200 miles asunder; and afterwards meet in one point near the sea, after each has performed a winding course of more than 2000 miles. Our ignorance of this circumstance, till so very lately, is a strong presumptive proof, that there yet remains a vast field for improvement, in the geography of the eastern part of Asia.

SECTION

General View
of the principal
Roads and Divisions
of
HINDOOSTAN.
1788.



SECTION VII.

TABLES of DISTANCES in HINDOOSTAN.

THE following Tables, will, it is hoped, be particularly acceptable, not only to those, who for useful purposes may be desirous of calculating the time required for a courier or messenger to travel from one place to another, but also to those, who on the score of curiosity, or for the illustration of history, may wish to be informed of the distances between the principal towns in Hindoostan. This information cannot be obtained merely by the application of the compasses to the map, because the windings and inflections of the roads are not there taken into the account: but an approximation towards it, may be obtained, by the double operation of measuring the distance on the map, and then applying to it, the rule given in page 7 of this Memoir.

To accomplish the task above proposed, I first selected the names of such cities and other places as appeared likely to become objects of enquiry in future; and in so extensive a country, no less than 168 such places occurred. To have given the distance between every two of these places respectively, would not only have extended the tables to an immoderate length (upwards of 14,000 distances occurring on the above number) but would have burthened the purchaser with much useless matter. For instance, although Jionpour has a political connexion with Lucknow, and Tanjore with Madras; and it may be necessary that the distance of each of these subordinate places from its superior, should be given:

yet, as Jionpour and Tanjore stand in little or no relation to each other, it was of no use to give the distance between them. The same may be said of most of the other subordinate places.

The method, therefore, that I have followed, is this: "I have chosen such places as appear to be of the greatest political consequence (such as the British Presidencies, and the Courts of the native Princes) and of which I reckon 12; and considering them as centres, have formed for each a separate table, in which the distance from the central place to every other place of note, whose situation may be supposed to become a matter of enquiry, is inserted; the names following in alphabetical order. A page is allotted to each of these central places, which are AGRA, BENARES, BOMBAY, CALCUTTA, DELHI, HYDERABAD, LUCKNOW, MADRAS, NAGPOUR, OUGEIN, POONAH, and SERINGAPATAM, and these also follow in the same order.

The tables contain near 1000 distances; and although these are reckoned only from 12 different points, yet by attending to the particulars of each table, a great many other distances may be found; as the communication between places, is usually by the medium of the capital towns that intervene (see page 6). For instance, the distance between Arcot and Allahabad may be collected from the tables of Hydrabad and Nagpour, as these places lie in the line of direction between the two former. Also, the distance between Patna and Aurungabad may be found by means of the Nagpour table: and that from Mirzapour to Surat, by subtracting the distance of the one from the other, in the Benares table. And by the same methods, the distances between most other places of note may be found. And in order to facilitate the search, and bring into one view the respective positions of the several places mentioned in the tables, I have added a small map.

To avoid repeating the distances between the 12 central or primary places, through every table, they are inserted in that table, alone, whose name stands first in the alphabet. Thus the distance

between CALCUTTA and AGRA, will be found in the AGRA table, and not in that of CALCUTTA.

With respect to the distances themselves, it must not be expected that they are in general critically exact; for although the positions of 8 out of the 12 primary places are determined with some degree of precision; and 3 out of the 4 remaining ones, pretty nearly; yet the intermediate roads have, in few instances (those between Bèngal and Delhi excepted) been measured. But since the publication of the first tables, the measured routes of Col. Pearse from Calcutta to Madras, Mr. Ewart's between Calcutta and Nagpouir; and Mr. Pringle's tables of routes in the Carnatic; have come to hand: and the present tables will accordingly be found much improved. The deficiencies could only be supplied by the computed distances; which, however, appear to come as near the truth in India, as in any country whatever: or where these have failed, by allowing such a degree of winding, as is found by experience to take place in a similar kind of country. The coss is always reckoned at one British mile and nine-tenths, in road measure. For other particulars respecting the length of the coss, and the windings of roads, the reader is desired to turn to the first pages of this Memoir.

The length of a day's journey in Hindoostan (as has been observed before) is from 11 to 12 cosses, or about 22 miles, for an ordinary traveller. But that of a courier, or professed messenger, may be reckoned at 30 or 33; and on occasions of emergency, they can travel even more; and that for a continuance of 15 or 20 days.

A regular post is established throughout the parts of Hindoostan subject to the East India Company, and also from Calcutta to Madras. The postmen always travel on foot. Their stages are commonly from 7 to 8 miles; and their rate of travelling within our own districts, about 70 miles in the 24 hours.

T A B L E I.

A G R A, to

	British Miles.		British Miles.
Agimere	230	Hurdwar	217
Allahabad	296	Hydrabad <i>by Elichpour</i>	806
Amedabad	534	<i>by Nagpour</i>	835
Amednagur	713	Jagarnaut	793
Arcot	1160	Joinagur <i>or Jazpour</i>	136
Attock	704	Lahore	503
Aurangabad	633	Lucknow	202
Bareilly	129	Madras <i>by Elichpour</i>	1158
Beder	740	<i>by Nagpour</i>	1187
Benares	379	Masulipatam	831
Bijnagur	989	Meerta	294
Bombay <i>by Burhanpour</i>	848	Mirzapour	346
<i>by Amedabad</i>	858	Moorshedabad	826
Burhanpour	508	Moultan <i>by Delhi</i>	611
Cabul	922	Mundu	420
Calberga	365	Myfore	1238
Calcutta <i>by Moorshedabad</i>	944	Nagpour <i>by Hufingabad</i>	548
<i>by Birboom</i>	839	<i>by Chatterpour</i>	514
Calpy	160	Napaul	424
Canibay	587	Narwah	127
Candahar	942	Oude <i>or Fyzabad</i>	287
Canoge	127	Ougein <i>by Narwah</i>	374
Cashmere	728	Patna	544
Cattack	785	Pondicherry	1287
Chatterpour	212	Poonah	796
Cheitore	300	Ramgaut	74
Corah	184	Rantampour	120
Dacca	990	Ruttunpour	513
Delhi	117	Sattarah	840
Dowlatabad	628	Seringapatam	1230
Elichpour	487	Sirong	253
Etayah	71	Sumbulpour	617
Fyzabad. <i>See Oude.</i>		Surat <i>by Amedabad</i>	680
Goa	1020	Tatta <i>or Sindy</i>	887
Golconda	790	Viliapour	825
Gwalior	80	Warangole	868

TABLE II.—BENARES to

	British Miles.		British Miles.
Agimere	571	Hydrabad	751
Allahabad	83	Jagarnaut	512
Amedabad	793	Jionpour	42
Arcot	1105	Indore	584
Attock	1083	Joinagur or Jaepour	515
Aurungabad	740	Lahore	882
Balafore by Chuta Nagpour	316	Lucknow	189
Bareilly	345	Madras by Hydrabad	1103
Baroach	820	Mafulipatam by Nagpour	853
Beder	720	Meerta	636
Bidjigur	56	Mindygaut	253
Biliah	416	Mirzapour	30
Bombay by Nagpour	982	Monghir	255
by Burhanpour	950	Moorthedabad by Birloom	417
Bopaltol	449	by Monghir	477
Burhanpour by Sagur	609	Moulton	990
Buxar	70	Mundlah	306
Cabul	1301	Myfore	1165
Calberga or Kilberga	783	Nagpour	430
Calcutta by Moorthedabad	565	Napaul	280
by Birloom	400	Narwah	356
Calpy	239	Oude	130
Cambay	806	Ougein	554
Candahar	1321	Patna by Buxar	155
Canoge	259	by Dacadrnagar	165
Cashmere	1107	Pawangur	754
Cattack, by Chuta Nagpour	452	Pondicherry	1203
Chatterpour	237	Poonah by Nagpour	916
Cheitore	601	by Burhanpour	897
Chittigong	752	Ramgaut	419
Chunargur	17	Rewah	126
Corah	195	Rotafgur	81
Dacca	601	Ruttunpour	275
Delhi	496	Sagur	341
Dowlatabad	742	Sattarah	942
Ellichpour	552	Seringapatam	1157
Etayah	308	Sindy or Tatta	1210
Furruckabad	295	Sirong	389
Fyzabad. See Oude.		Sumbulpour	375
Ganjam	570	Surat by Sirong and Ougein	863
Ghod or Gobud	336	by Burhanpour	869
Goa	1070	Tanjore by Nagpour	1273
Golconda	750	Tritchinopoly	1277
Gurrah	270	Vifagapatam	758
Gwalior	355	Vifapour	876
Hurdwar	500		

TABLE III.—BOMBAY to

	British Miles.		British Miles.
Agimere by Amedabad	650	Jagarnaut	1052
Allahabad by Nagpour	977	Janfi	728
Amedabad	321	Jesselmere	680
Amednagur by Poona	181	Indore by Pawangur	456
Anjenga	900	Joinagur or Jaepour	740
Artot	722	Lahore	1010
Aurangabad by Callian	260	Lucknow	923
by Poona	284	Madras	758
Baroach	221	Mangalore	518
Basseen	27	Masulipatam	686
Beder	426	Meerta	610
Bednore	452	Mirzapour	952
Bisnagur	393	Moorshedabad	1259
Bopaltol	516	Moulton by Jesselmere	920
Burhanpour by Poona	386	Mundu	454
by Chandor	340	Myfore	630
Calberga	386	Nagpour by Poona	577
Calcutta by Poona	1301	by Callian	552
Callian	32	Narwah	721
Calpy	821	Onore	398
Cambay	281	Oude by Burhanpour and Sirong	1013
Canoge	889	Ougein by Pawangur	486
Cashmere	1233	by Burhanpour	504
Cattack	1034	Patna by Rewah	1145
Chatterpour	747	Pawangur	286
Cheitore	547	Pondicherry	805
Cochin	780	Poona	98
Corah	953	Ruttunpour	772
Damaun	107	Saler-Mouler	182
Delhi by Amedabad and Agimere	880	Sattarah	146
by Burhanpour	965	Seringapatam	622
Dowlatabad	258	Sindy or Tatta	741
Fyzabad. See Oude.		Sirong	595
Goa	292	Sumbulpour	826
Golconda	475	Surat	177
Gwalior	768	Tellicherry	615
Hussingabad Gaut	500	Viliapour	234
Hydrabad	480	Vizrabuy or Vizarable	48

TABLE IV.—CALCUTTA to

	British Miles.		British Miles.
Adoni	1030	Canoge by M.	824
Aginiere by Moorshedabad	1136	by B.	719
by Birboom	1030	Cashmere, Capital of, by M.	1672
Allahabad by M.	649	by B.	1567
by B.	544	Cattack	251
Amedabad by Ougein	1234	Chatterpour by M.	803
Amednagur	1119	by B.	698
Anjenga	1577	Cheitore by M.	1163
Aracan	475	by B.	1063
Arcot	1070	Chittigong	317
Affam, Capital of	660	Chunargur by M.	574
Attock	1648	by B.	469
Ava	1150	Cicacole	490
Aurangabad	1022	Comorin Cape	1470
Bahar	297	Condavir or Guntoor	791
Balafore	141	Corah by M.	760
Baroach by Nagpour	1220	by B.	653
Bareilly by M.	910	Dacca	177
by B.	805	Delhi by M.	1061
Bassein by Poonah	1317	by B.	956
Beder	980	Dellamcotta	344
Bedaore	1290	Dowlatabad	1020
Billah by Mundlab	867	Ellichpour	844
Bishnagur	1120	Ellore	719
Bopaltol by Mirzapour	929	Etayah by M.	873
by Mundlab	892	by B.	768
Burhanpour by Nagpour	973	Furruckabad by M.	860
Buxar by M.	485	by B.	755
by B.	408	Ganjam	369
Cabul by M.	1206	Gangpour	393
by B.	761	Ghod or Gokud by M.	888
Calberga by the Circars	1018	by B.	783
Calpy by M.	804	Goa	1300
by B.	699	Golconda	907
Cambay by Nagpour	1273	Guntoor. See Condavir.	
by Mundlab and Ougein	1253	Gwalior by M.	910
Candahar by Moorshedabad	1886	by B.	805
by Birboom	1781		

CALCUTTA to

	British Miles.		British Miles.
Hurdwar <i>by M.</i>	1080	Ongole	829
<i>by B.</i>	975	Oude <i>by Moorshedabad and Benares</i>	695
Hunfigabad <i>Gaut by Nagpour</i>	909	<i>by Birboom and Benares</i>	590
Hydrabad <i>by Nagpour</i>	1043	<i>by Moorshedabad and Azimgur</i>	639
<i>by the Circars</i>	902	<i>by Birboom and Azimgur</i>	582
Jagarnaut	311	Ougein <i>by Patna</i>	1066
Indore <i>by Mundlah</i>	1030	<i>by Nagpour</i>	1062
Joinagur or Jaepour <i>by M.</i>	1080	<i>by Mundlah</i>	997
<i>by B.</i>	975	Patna <i>by M.</i>	400
Lahore <i>by M.</i>	1447	<i>by B.</i>	340
<i>by B.</i>	1342	Pawangur <i>by Ougein</i>	1197
Lassa	850	Pondicherry	1130
Lucknow <i>by M.</i>	754	Poonah <i>by Nagpour</i>	1208
<i>by B.</i>	649	<i>by the Circars</i>	1289
Madras	1030	Ranigaut <i>by M.</i>	984
Madura	1336	<i>by B.</i>	879
Masulipatam	764	Rajamundry	665
Meerta <i>by M.</i>	1197	Ruttunpour <i>by Little Nagpour</i>	493
<i>by B.</i>	1092	<i>by Cattack</i>	545
Mindygaut <i>by M.</i>	818	Sagur <i>by Mundlah</i>	806
<i>by B.</i>	713	Sattarah <i>by Nagpour</i>	1232
Mirzapour <i>by M.</i>	598	Seringapatam	1170
<i>by B.</i>	493	Silhet	315
Monghir <i>by M.</i>	301	Sindy or Tatt	1002
<i>by B.</i>	275	Sirong <i>by Benares</i>	849
Moorshedabad	118	Sumbulpour <i>by Cattack</i>	441
Moulton <i>by M.</i>	1565	<i>by Little Nagpour</i>	438
<i>by B.</i>	1450	Surat <i>by Benares and Ougein</i>	1309
Mundilla	634	<i>by Nagpour</i>	1238
Myfore	1178	Tanjore	1235
Nagpour, Great		Trichinopoly	1238
<i>by Ruttunpour</i>	722	Vishagapatam	557
<i>by Cattack</i>	733	Vishapour <i>by the Circars</i>	1183
Nagpour, Little	280	<i>by Aurungabad</i>	1216
Napaul	591		
Narwah <i>by M.</i>	922		
<i>by B.</i>	817		

TABLE V.—DELHI to

	British Miles.		British Miles.
Agimere	230	Jagarnaut	910
Allahabad	412	Jionpour	456
Amethabad	610	Joinagur or Jaepour	156
Amednagur	830	Jumnoo	379
Aracan	1420	Lahore	386
Arcoot	1277	Lucknow	279
Aflam	1318	Madras by <i>Ellichpour</i>	1275
Attock	587	by <i>Nagpour</i>	1304
Aurangabad	750	by <i>Burhanpour</i>	1357
Babar	642	Masulipatam	1084
Barilly	142	Meerta	295
Beder	857	Mindygaut	210
Bijnagur	1106	Mirzapour	463
Burhanpour	625	Moorshedabad	943
Cabul	805	Moultan	494
Calberga	982	Myfore	1330
Calpy	277	Munda	481
Cambay	668	Nagpour	631
Candahar	825	Napaul	500
Canoge	214	Narwah	244
Cashmere by <i>Lahore</i>	611	Oude	364
Cattack	902	Ougein	435
Cheitore	327	Panniput	72
Comorin Cape	1728	Patna	661
Corah	301	Pishour or <i>Peishore</i>	634
Dacca	1107	Pondicherry	1400
Dowlatabad	745	Poonah	913
Ellichpour	604	Rangaut	77
Erayah	138	Ruttunpour	623
Fyzabad. See <i>Oude.</i>		Sattarah	963
Ghizni or <i>Gazna</i>	749	Seringapatam	1321
Goa	1158	Sindy or <i>Tatta</i>	810
Golconda	958	Sirhind	195
Gwalior	197	Sirong	370
Hurdwar	117	Sambulpour	730
Huffun-Abdaul	550	Surat	756
Hydrabad by <i>Ellichpour</i>	923	Vishnupour	916
by <i>Nagpour</i>	952	Warangole	985

TABLE VI.—HYDRABAD to

	British Miles.		British Miles.
Adoni	175	Jagarnaut	591
Agumere	800	Janfi	684
Alahabad	703	Indore	550
Amedabad	661	Ingerant	272
Amednagar	335	Joinagur <i>or Jaepour</i>	829
Arcot	354	Lahore	1309
Aurungabad	205	Lucknow	795
Balafore	761	Madras	352
Bancapour (Sanore)	267	Madura	613
Bangalore	352	Mahur <i>or Meer</i>	173
Baroach <i>or Broach</i>	549	Mangalore	470
Beder	78	Maluhpatan	203
Bednore	413	Meerta	800
Bihah	506	Mirzapour	722
Bisnagur	264	Moorhedabad	1020
Bopalol	493	Mundu	498
Burhanpour <i>by Jafferabad</i>	380	Myfore	414
<i>by Aurungabad</i>	417	Nagpour	321
Calberga	115	Narwah	679
Calpy	713	Neerhul	144
Cambay	629	Omrautcy	293
Canoul	157	Ongole	164
Cattack	651	Oude	811
Chatterpour	623	Ougein <i>by Jafferabad</i>	344
Cheitore	713	Patna <i>by Nagpour and Rewah</i>	914
Chitteldroog	322	Pandicherry	452
Cicacole	412	Poonah	317
Combam <i>or Commam</i>	145	Rachour	91
Condanore	156	Rajamundry	237
Condavir	131	Raolconda	144
Condapilly	142	Roydroog	252
Corah	728	Ruttunpour	551
Cuddapa	230	Sagur	536
Dalmacherry	278	Sattrah	366
Dowlatabad	303	Seringapatam	406
Ellichpour	349	Sindy <i>or Tutta</i>	1074
Ellore	183	Sirong	553
Fyzabad. <i>See Oude</i>		Siffny	317
Ganjam	533	Solapour	144
Goa	416	Surat	575
Golconda	5	Tanjore	522
Goory	478	Tiariyecotta	71
Guntoor. <i>See Condavir</i>		Tinevelly	709
Gurramconia	275	Tritchinopoly	526
Gur Munillah	476	Vilaspattam	355
Gwalior	726	Vishapour	269
Hussingabad Gaur	444	Warangole	62
Jafferabad	303	Yanam	272

TABLE VII.—LUCKNOW to

	British Miles.		British Miles.
Aganere	428	Goorackpour	170
Allahabad	127	Gwalior	211
Amedabad	77	Hurdwar	311
Arco	1147	Jagernaut	660
Aurangabad	690	Janji	190
Bahar	388	Jionpour	147
Bahraitch	78	Indore	522
Bareilly	136	Joinagur or Jaepour	338
Baroach	761	Kairabad	31
Belgram	70	Lahore	639
Biliah	367	Mahomdy	92
Bidzigur	234	Malulipatam by Nagpour	897
Bopaltol	398	Meerta	493
Burhanpour	573	Mindygaut	69
Buxar	232	Mirzapour	182
Cabul	1084	Monghir	416
Callinger or Kaulinger	149	Moonshedabad	597
Calpy	98	Mooltan	742
Canoge	75	Mundlah	337
Cashmere	893	Nagpour	474
Cattack	641	Nutwan	258
Cawapour	49	Oude or Fyzabad	85
Chanderee	270	Ougem	495
Chatterpour	172	Patna	316
Cheitore	503	Pondicherry	1247
Chitrigong	947	Poonah	882
Chunar	197	Ramgaut	201
Corah	67	Rewah	182
Cuttala	95	Rotaigur	276
Dacca	750	Rurtunpour	392
Dowlatabad	728	Sagur	300
Dynapour	304	Sattarah	910
Etayah	144	Seringapatam	1201
Furruckabad	111	Sindy or Tatta	1089
Fyzabad. See Oude.		Sirong	318
Ghod or Gobud	788	Sultanpour	92
Goa	1115	Sambulpour	497
Golconda	794	Vishapour	920

TABLE VIII.—MADRAS to

	British Miles.		British Miles.
Adoni	310	Gunttoor. <i>See Condavir.</i>	
Agimere	1152	Gurramconda	253
Allahabad	1055	Gwalior	1078
Amedabad	1049	Jagarnaut	719
Anjenga	506	Indore	902
Artor	73	Ingeram	399
Aurangabad	647	Lahore	1661
Bahāfore	689	Madura <i>by Tanjore</i>	307
Bancapour (Sanore)	410	Margalore	440
Bandarmalanka	358	Malulipatam	292
Bangalore	215	Mirzapour	1074
Baroach	947	Moorhedabad	1148
Beder	430	Mundu	850
Benore	443	Nagpour	673
Bihagur	386	Negaparam	183
Burhanpour <i>by Aurungabad</i>	769	Nellore	120
<i>by Jaffierabad</i>	32	Oude	1163
Cabul	2020	Ougein	896
Calberga	422	Palamcottah	401
Cambay	498	Panna <i>by Nagpur</i>	1266
Canoge	1141	Pondicherry	100
Canoul	279	Poonah	660
Cashmere	1886	Rachore	323
Cattack	275	Rajamundry	365
Charterpour	975	Raolconda	382
Cheitore	1065	Ruttunpore	903
Chitteldroog	332	Satara	620
Cicacole	540	Seringapatam	290
Coimbatour	306	Siccacoliam	267
Combam <i>or Coimbat</i>	214	Sindy <i>or Zatta</i>	1467
Comorin Cape (Arameny Gate)	440	Sing	905
Condapilly	306	Simp	281
Condavir	276	Surat	903
Conjeveram	46	Tanjore	205
Corah	1080	Tiravercotta	278
Cuddapa	153	Trankebar	165
Dalmacherry	115	Travancore	464
Dindigul	275	Trichinopoly	208
Dowlatabad	655	Tutacoxin	394
Ellichpour	671	Vellore	88
Ellore	310	Visagapatam	483
Ganjam	661	Visapour	534
Goa	575	Warangole	414
Golconda	358	Yanam	400
Gooty <i>or Gutti</i>	269		

TABLE IX.—NAGPOUR to*

	British Miles.		British Miles.
Adoni	496	Hussingabad Gaut	187
Ahmadabad	382	Jagernaut	500
Amedabad	576	Indore	371
Amretnagar	403	Joinagur or Jaspur	540
Arcot	675	Mahur or Maor	167
Aurangabad	300	Masulipatam	423
Balafore	592	Meerta	596
Bareilly	576	Muzapour	404
Beder	302	Moorhedabad by Chata Nag-	
Bednore by Hyderabad	734	pour	695
Biliah	249	Mundilla	155
Binnagur	569	Nagpur Little	433
Boad	347	Narnalla	164
Bopaltol	238	Narwah by Hussingabad	421
Burhanpour	256	Neeraul	177
Burwa	383	Omraatty	113
Calberga	358	Olde or Fyzabad	496
Calpy	394	Ojjein by Bopaltol	340
Canoge	486	Pandiput	703
Cattack	483	Patna by Ruttunpour	577
Chanda	90	by Rewah	593
Chanderee	302	Pondicherry	773
Chatterpour	302	Poonah	486
Chitore	510	Rachore	412
Chitra or Chittab	463	Rangaut	588
Chunargur	420	Rangur in Bahar	483
Cipacole	400	Raypour	200
Condapilly	370	Rewah	304
Condavar or Guntoor	385	Rotafgur	440
Cosmitah	93	Routunpour	420
Corah	407	Sigur	215
Cuddapa	551	Sattarah	514
Dowlatabad	503	Seringapatam	727
Ellichpour	122	Sirong by Hussingabad	295
Ellore	377	Sonepour or Jonepour	300
Gangpour	320	Sumbulpour	202
Ganjam by Boad and Gunjaor	480	Surat	516
Gawile or Gyalgur	137	Surgoojah	318
Goa	640	Tanjore	843
Golconda	320	Tritchynopoly	840
Gooty or Gutta	500	Vellore	670
Gumfoar	434	Vifagapatam	394
Gurrah	160	Vifiapour	448
Gwalior by Hussingabad	480	Warangole	258

TABLE X.—O U G E I N, to

	British Miles.		British Miles.
Agimere	256	Janli	298
Allahabad	480	Jeffelmere	365
Amedabad	275	Indore	30
Amednagur	365	Joinagur or Jaepour	285
Areot	905	Jbudypour	260
Aurangabad	287	Kotta	150
Baroach	266	Meerta	256
Bareilly	503	Mirzapour	516
Basseen	448	Moorhedabad by Gurry-Mund-	
Bilfah	140	lab	983
Bisnagur	645	by Patna	1007
Bopalcol	112	Mandu	46
Bughanpour	164	Mundilla	363
Calpy	382	Naderbar or Noondabar	203
Cambay	270	Nagore	305
Canoge	564	Nagpour Little	780
Cattack, by Nagpour	222	Narwah direct	254
Chanderee	242	by Sirong	291
Chatterpour	320	Oudipour	135
Cheitore	169	Patna	726
Corah	420	Pondicherry	998
Dowlatabad	280	Poonah by Burhanpour	452
Ellichpour	237	Powangur	200
Etayah	402	Ratngaiz	488
Furruckabad	468	Raoampoun	260
Fyzabad, or Oude	583	Ruttunpour	508
Ghod or Gobud	356	Sagur	212
Goa by Poonah	697	Sattarah	502
Golconda	539	Seringapatam	886
Gwalior	336	Sirong	165
Hindia	116	Sorabulpour	608
Husslingabad Gant	153	Surat	309
Jalore	220	Viliapour	474

TABLE XI.—P O O N A H to *

	British Miles.		British Miles:
Adoni	360	Huffingabad Gaut	450
Agimere	670	Jagarnaut <i>by Nagpour</i>	986
Allahabad <i>by Sirong</i>	853	Janfi	674
Amedabad	389	Indore	450
Amernagur	83	Joinagur or <i>Jacpour</i>	737
Arcot	624	Mangalore	455
Aurangabad	186	Masulipatam	590
Balafore	1078	Mahur or <i>Maar</i>	355
Bancapour (Sanore)	268	Meerta	644
Bangalore	521	Mindygaut	844
Bareilly	910	Mirzapour <i>by Sirong</i>	900
Baroach	287	<i>by Nagpour</i>	887
Basreen	114	Moorshedabad <i>by Nagpour</i>	1184
Beder	310	Mundilla	641
Bednore	382	Mundu	406
Bilfah	496	Naderbar	230
Bisnagur	300	Nagpour <i>Little</i>	919
Bopaltol	463	Narwah	669
Burhanpour	288	Omrautty	373
Calberga	271	Oxle or <i>Eyzabad</i>	947
Callian	91	Panniput	985
Calpy	768	Patna <i>by Sirong</i>	1090
Cambay	338	<i>by Nagpour</i>	1063
Canoge	842	Pawangur	352
Canoul	387	Pondicherry	707
Cattack <i>by Nagpour</i>	908	Poorundar	18
Chanderée	620	Rachore	357
Chatterpour	695	Rangaut	870
Cheitore	570	Ruttonpour	706
Chitteldroog	411	Rydroog	386
Condavir or <i>Guntaar</i>	528	Sagur	556
Corah	812	Sattarah	450
Dalmacherry	548	Seringapatam	525
Dowlatabad	184	Sirong	543
Ellichpour	380	Sumbulpour	778
Ellore	570	Surat	243
Etayah	779	Tanjore	762
Furruckabad	847	Tatta or <i>Sindy</i>	807
Ghod or <i>Gobud</i>	726	Tritchinpoly	730
Goa	245	Vellore	616
Golconda	382	Vifagapatam	742
Goory or <i>Gutti</i>	392	Vifapour	136
Gwalior	716	Vifrabuy	112

TABLE XII.—SERINGAPATAM to

	British Miles.		British Miles.
Adoni	243	Golconda	408
Amednagur	541	Gooty or Gutti	228
Anjenga	325	Gurramconda	172
Arcot	217	Jagarnaut	860
Aurungabad	599	Madura	240
Bancapour (Sanore)	231	Mangalore	162
Bangalore	74	Masulipatam	430
Beder	432	Myfore	8
Bednore	187	Negapatam	296
Bijnagur	260	Ongole	338
Burhanpouir	722	Onore	244
Calicut	129	Palamcotta	317
Calberga	390	Palicaudcherry	131
Canoul	279	Pondicherry	260
Changamah	178	Rachore	315
Chitteldroog	115	Raolconda	322
Cochin	214	Roydroog	168
Coimbetour	122	Sattarah	477
Combam or Commish	291	Sirripy	89
Comorin Cape	380	Sollapour	302
Condanore	250	Tanjore	237
Condapilly	444	Tellicherry	128
Condavir or Guntoor	414	Tinevelly. See Palamcotta.	
Cuddapa	220	Timerycotta	363
Dalmacherry	202	Trankebar	295
Dindigul	198	Travancore	344
Dowlatabad	606	Tritchynopoly	205
Ellichpour	695	Vellore	202
Ellore	448	Vilapour	405
Goa	335		

A P P E N D I X

A D V E R T I S E M E N T.

THE within Tract has already made its appearance in the Philosophical Transactions of 1781. It was suggested to the Author, that it would make a very proper Appendix to the MEMOIR OF THE MAP OF HINDOOSTAN; and he accordingly offers it to the Public under that denomination: happy should the Appendix meet a degree of indulgence, equal to what the Work itself has experienced.

AN
ACCOUNT
OF THE
GANGES
AND
BURRAMPOOTER RIVERS.

They gathering many a flood, and copious fed
With all the mellowed treasures of the sky,
Wind in progressive majesty along;
And traverse realms unknown, and blooming wilds,
And fruitful deserts — Forfaking these,
O'er peopled plains they fair-diffusive flow,
And many a nation feed, and circle safe,
Within their bosom many a happy isle.
Thus pouring on, they proudly seek the deep,
Whose vanquish'd tide, recoiling from the shock,
Yields to this liquid weight —

THOMSON'S SEASONS.

AN ACCOUNT, &c.

THE * GANGES and † BURRAMPOOTER Rivers, together with their numerous branches and adjuncts, intersect the country of BENGAL (which, independent of BAHAR and ORISSA, is somewhat larger than GREAT BRITAIN) in such a variety of directions, as to form the most complete and easy inland navigation that can be conceived. So equally and admirably diffused are those natural canals, over a country that approaches nearly to a perfect plane, that, after excepting the lands contiguous to Burdwan, Birboon, &c. which may be reckoned a sixth part of Bengal, we may safely pronounce, that every other part of the country, has, even in the dry season, some navigable stream within 25 miles at farthest, and more commonly within a third part of that distance.

It is supposed, that this inland navigation gives constant employment to 30,000 boatmen. Nor will it be wondered at, when it is known, that all the salt, and a large proportion of the food consumed by ten millions of people are conveyed by water within the kingdom of Bengal and its dependencies. To these must be added, the transport of the commercial exports and imports, probably to the amount of two millions sterling *per annum*; the interchange of manufactures and products throughout the whole country; the fisheries; and the article of travelling ‡.

* The proper name of this river in the language of Hindoostan (or Indostan) is *Padda* or *Padda*. It is also named *Borra Ganga*, or the Great River; and *Ganga*, the River, by way of eminence; and from this, doubtless, the European names of the river are derived.

† The orthography of this word, as given here, is according to the common pronunciation in Bengal; but it is said to be written in the Sanscrit language, *Brabma-pootar*; which signifies the Son of *Brabma*.

‡ The embarkations made use of, vary in bulk from 180 tons down to the size of a wherry. Those from 30 to 50 tons are reckoned the most eligible for transporting merchandize.

These

These rivers, which a late ingenious gentleman aptly termed sisters and rivals (he might have said *twin* sisters, from the contiguity of their springs) exactly resemble each other, in length of course; in bulk, until they approach the sea; in the smoothness and colour of their waters; in the appearance of their borders and islands; and, finally, in the height to which their floods rise with the periodical rains. Of the two, the Burrampooter is the largest; but the difference is not obvious to the eye. They are now well known to derive their sources from the vast mountains of THIBET*, from whence they proceed in opposite directions, the Ganges seeking the plains of HINDOOSTAN (or INDOSTAN) by the west; and the Burrampooter by the east; both pursuing the early part of their course through rugged vallies and defiles, and seldom visiting the habitations of men. The Ganges, after wandering about 800 miles through these mountainous regions, issues forth a deity to the superstitious, yet gladdened, inhabitant of Hindoostan†. From Hurdwar (or Hurdwar) in latitude 30°, where it gushes through an opening in the mountains, it flows with a smooth navigable stream through delightful plains, during the remainder of its course to the sea (which is about 1350 miles) diffusing plenty immediately by means of its living productions; and secondarily by enriching the

* These are among the highest of the mountains of the old hemisphere. I was not able to determine their height; but it may in some measure be guessed, by the circumstance of their rising considerably above the horizon, when viewed from the plains of Bengal, at the distance of 150 miles.

† The fabulous account of the origin of the Ganges (as communicated by my learned and ingenious friend C. W. BOUGHTON ROUSE, Esq.) is, that it flows out of the foot of BESCHAN (the same with Vitnoa, the PRESERVING DEITY) from whence, say the Bramins, it has its name *Padda*; that word signifying lot in the Sanscrit language; and that in its course to the plains of Hindoostan, it passes through an immense rock shaped like a Cow's head.

The allegory is highly expressive of the veneration which the Hindoos have for this famous stream; and no less so of their gratitude to the Author of Nature for bestowing it: for it describes the blessing as flowing purely from his bounty and goodness.

The rock before mentioned has, I believe, never been visited by any European; and is even allowed by most of the natives to bear no resemblance to the object from whence it is denominated. However, as the effects of superstition do often long survive the illusions that gave it birth, the rock or cavern still preserves its original name. (This note was written before it was known that M. Tieffenthaler had visited it).

adjacent lands, and affording an easy means of transport for the productions of its borders. In a military view, it opens a communication between the different posts, and serves in the capacity of a *military way* through the country; renders unnecessary the forming of magazines; and infinitely surpasses the celebrated inland navigation of North America, where the *carrying places* not only obstruct the progress of an army, but enable the adversary to determine his place and mode of attack with certainty.

In its course through the plains, it receives eleven rivers, some of which are equal to the Rhine, and none smaller than the Thames, besides as many others of lesser note. It is owing to this vast influx of streams, that the Ganges exceeds the Nile so greatly in point of magnitude, while the latter exceeds it in length of course by one-third. Indeed, the Ganges is inferior in this last respect, to many of the northern rivers of Asia, though I am inclined to think that it discharges as much or more water than any of them, because those rivers do not lie within the limits of the periodical rains.

* The proportional lengths of some of the most noted rivers in the world are shown nearly by the following numbers:

European Rivers	
Thames	1
Rhine	3½
Danube	7
Volga	9½
Asiatic rivers	
Indus (probably)	6½
Euphrates	8½
Ganges	9½
Barran/pooten	9½
Nou Kian, or Ava River	9½
Jenisei	10
Oby	10½
Amoer	11
Leua	11½
Hoban (of Asia)	13½
Kien Leu (of Asia)	15½
African rivers	
Nile	12½
American rivers	
Mississippi	8
Amazona	15½

The bed of the Ganges, is, as may be supposed, very unequal in point of width. From its first arrival in the plains at Hurdwar, to the conflux of the Jumna (the first river of note that joins it) its bed is generally from a mile to a mile and a quarter wide; and, compared with the latter part of its course, tolerably straight. From hence, downward, its course becomes more winding, and its bed consequently wider*, till, having successively received the waters of the Gogra, Soane, and Gunduck, besides many smaller streams, its bed has attained its full width; although, during the remaining 600 miles of its course, it receives many other principal streams. Within this space it is, in the narrowest parts of its bed, half a mile wide, and in the widest, three miles; and that, in places where no islands intervene. The stream within this bed is always either increasing or decreasing, according to the season. When at its lowest (which happens in April) the principal channel varies from 400 yards to a mile and a quarter; but is commonly about three quarters of a mile, in width.

The Ganges is fordable in some places above the conflux of the Jumna, but the navigation is never interrupted. Below that, the channel is of considerable depth, for the additional streams bring a greater accession of depth than width. At 500 miles from the sea, the channel is thirty feet deep when the river is at its lowest; and it continues at least this depth to the sea, where the sudden expansion of the stream deprives it of the force necessary to sweep away the bars of sand and mud thrown across it by the strong southerly winds; so that the principal branch of the Ganges cannot be entered by large vessels.

About 220 miles from the sea (but, 300 reckoning the windings of the river) commences the head of the delta of the Ganges,

* This will be explained when the windings of the river are treated of.

which

which is considerably more than twice the area of that of the Nile. The two westernmost branches, named the Cossimbazar and Jellinghy rivers, unite, and form what is afterwards named the Hoogly river, which is the part of Calcutta, and the only branch of the Ganges that is commonly navigated by ships*. The Cossimbazar river is almost dry from October to May; and the Jellinghy river (although a stream runs in it the whole year) is in some years unnavigable during two or three of the driest months; so that the only subordinate branch of the Ganges, that is at all times navigable, is the Chudpali river, which separates at Moddapore, and terminates in the Hooringotta.

That part of the delta bordering on the sea, is composed of a labyrinth of rivers and creeks, all of which are salt, except those that immediately communicate with the principal arm of the Ganges. This tract, known by the name of the Woods, or *Sunderbunds*, is in extent equal to the principality of Wales; and is so completely enveloped in woods, and infested with tigers, that if any attempts have ever been made to clear it (as is reported) they have hitherto miscarried. Its numerous canals are so disposed as to form a complete inland navigation throughout and across the lower part of the delta, without either the delay of going round the head of it, or the hazard of putting to sea. Here salt, in quantities equal to the whole consumption of Bengal and its dependencies, is made and transported with equal facility: and here also is found an inexhaustible store of timber for boat-building. The breadth of the lower part of this delta is upwards of 180 miles; to which, if we

* The Hoogly river, or westernmost branch of the Ganges, has a much deeper outlet to the sea than the principal branch. Probably this may be owing to its precipitating a less quantity of mud than the other; the quantity of the Ganges water discharged here being less than in the other in the proportion of one to six. From the difficulties that occur in navigating the entrance of the Hoogly river, many are led to suppose, that the channels are shallow. The difficulties, however, arise from bringing the ships across some of the mud-banks, which project so far into the sea, that the channels between them cannot easily be traced from without.

add that of the two branches of the river that bound it, we shall have about 200 miles for the distance to which the Ganges expands its branches, at its junction with the sea.

It has been observed before, that the course of this river, from Hurdwar to the sea, is through an uniform plain; or, at least, what appears such to the eye: for, the declivity is much too small to be perceptible. A section of the ground, parallel to one of its branches, in length 60 miles, was taken by order of Mr. HASTINGS; and it was found to have about nine inches descent in each mile, reckoning in a straight line, and allowance being made for the curvature of the earth. But the windings of the river were so great, as to reduce the declivity on which the water ran, to less than four inches *per* mile; and by a comparison of the velocity of the stream at the place of experiment, with that in other places, I have no reason to suppose, that its general descent exceeds it*.

The medium rate of motion of the Ganges is less than three miles an hour in the dry months. In the wet season, and during the draining off the waters from the inundated lands, the current runs from five to six miles an hour; but there are instances of its running seven, and even eight miles, in particular situations, and under certain circumstances. I have an experiment of my own on record, in which my boat was carried 30 miles in eight hours; and that against so strong a wind, that the boat had evidently no progressive motion through the water.

When we consider, that the velocity of the stream is three miles in one season, and five or more in the other; on the same descent of four inches *per* mile; and, that the motion of the inundation is only half a mile *per* hour, on a much greater descent; no farther

* Mr. De Caynax has found the descent of the river Amazon, in a straight course of about 1000 miles, to be about 1020 English feet, or 19 inches in a mile. If we allow for the windings (which in the Ganges are about one mile and 2 in 1, taking its whole course through the plains) it probably would not exceed 4 inches in a mile.

proof is required how small the proportion of velocity is, that the descent communicates. It is then, to the *impetus* originating at the spring head, or at the place where adventitious waters are poured in, and successively communicated to every part of the stream, that we are principally to attribute the velocity, which is greater or lesser, according to the quantity of water poured in.

In common, there is found on one side of the river an almost perpendicular bank, more or less elevated above the stream, according to the season, and with deep water near it; and on the opposite side a bank, shelving away so gradually as to occasion shallow water at some distance from the margin. This is more particularly the case in the most winding parts of the river, because the very operation of winding produces the steep and shelving banks; * for the current is always strongest on the external side of the curve formed by the serpentine course of the river; and its continual action on the banks either undermines them †, or washes them down. In places where the current is remarkably rapid, or the soil uncommonly loose, such tracts of land are swept away in the course of one season, as would astonish those who have not been eye-witnesses to the magnitude and force of the mighty streams occasioned by the periodical rains of the tropical regions. This necessarily produces a gradual change in the course of the river, what is lost on one side being gained on the other, by the mere operation of the stream; for the fallen pieces of the bank dissolve quickly into muddy sand, which is hurried away by the current along the border of the channel, to the point from whence the river turns off to form the next reach.

* Hence it is, that the section of a river, that winds through a loose soil, approaches nearly to an obtuse angled triangle, one of which sides is extremely short and disproportioned to the other two . But when a river converges in a straight course, the section becomes nearly the half of an ellipse divided longitudinally . See Plate I.

† In the dry season some of these banks are more than 25 feet high, and often fall down in pieces of many tons weight, and occasion so sudden and violent an agitation of the water, as sometimes to sink large boats that happen to be near the shore.

where the stream growing weak, it finds a resting place: and helps to form a shelving bank, which commences at the point, and extends downwards, along the side of the succeeding reach.

To account for the slackness of the current at the point, it is necessary to observe, that the strongest part of it, instead of turning short round the point, preserves for some time the direction given it by the last steep bank: and is accordingly thrown obliquely across the bed of the river to the bay on the opposite side, and pursues its course along it, till the intervention of another point again obliges it to change sides. See plate I.

In those few parts of the river that are straight, the banks undergo the least alteration*, as the current runs parallel to them; but the least inflection of course, has the effect of throwing the current against the bank; and if this happens in a part where the soil is composed of loose sand, it produces in time a serpentine winding.

It is evident, that the opened additions made to the shelving bank before mentioned, become in time an encroachment on the channel of the river; and this is again counter-balanced by the depredations made on the opposite steep bank, the fragments of which either bring about a repetition of the circumstances above related, or form a bank or shallow in the midst of the channel. Thus a steep and a shelving bank are alternately formed in the crooked parts of the river (the steep one being the *indented* side, and the shelving one the *projecting*); and thus, a continual fluctuation of course is induced in all the winding parts of the river; each meander having a perpetual tendency to deviate more and more from the line of the general course of the river, by eating deeper into the bays, and at the same time adding to the points; till either the opposite bays

* It is more than probable, that the straight parts owe their existence to the tenacity of the soil of which their banks are composed. Whatever the cause may be, the effect very clearly points out such situations to be proper for placing towers in.

meet, or the stream breaks through the narrow isthmus, and restores a temporary straightness to the channel.

Several of the windings of the Ganges and its branches are fast approaching to this state; and in others, it actually exists at present. The experience of these changes should operate against attempting canals of any length, in the higher parts of the country; and I much doubt, if any in the lower parts would long continue navigable. During eleven years of my residence in Bengal, the outlet or head of the Jessinghy river was gradually removed three quarters of a mile farther down: and by two surveys of a part of the adjacent bank of the Ganges, taken about the distance of nine years from each other, it appeared that the breadth of an English mile and a half had been taken away. This is, however, the most rapid change that I have noticed; a mile in ten or twelve years being the usual rate of encroachment, in places where the current strikes with the greatest force; namely, where two adjoining reaches approach each other to a right angle. In such situations it not unfrequently excavates gulfs* of considerable length within the bank. These gulfs are in the direction of the strongest parts of the stream; and are, in fact, the young *bowls* (if I may so express myself) which in time strike out and become branches of the river: for we generally find them at those turnings that have the smallest angles†.

Two causes, widely different from each other, occasion the meandering courses of rivers; the one, the irregularity of the ground through which they run, which obliges them to wander in quest of a declivity; the other, the looseness of the soil, which yields

* The Comte DE GUYTON advises the digging of such gulfs to the banks of ordinary rivers, with a view to divert the current, when bridges or other buildings are endangered by it.

† The courses of these branches at the eddies, generally, if not always, become retrograde to the course of the river; for, a flood bank accumulating at the upper point of transition, gives an oblique direction upwards, to the branch, which would otherwise run out at right angles. This flood bank being always on the increase, occasions a corrosion of the opposite bank; and by this means fills in most of the outlets, I have just mentioned, down and a little below remarked of the Jessinghy river, in the foregoing page.

to the friction of the border of the stream. The meanders in the first case, are, of course, as digestive and irregular as the surface they are projected on; but, in the latter, they are so far reducible to rule, that rivers of unequal bulk will, under similar circumstances, take a circuit to wind in, whose extent is in proportion to their respective breadths: for I have observed, that when a branch of the Ganges is fallen so low as to occupy only a part of its bed, it no longer continues in the line of its old course; but works itself a new channel, which winds from side to side across the former one. I have observed too, that in two streams, of equal size, that which has the slowest current has also the finest windings: for as these (in the present case) are solely owing to the depredations made on the banks, by the force of the current; so the extent of these depredations, or, in other words, the dimensions of the windings, will be determined by the degree of force acting on the banks.

The windings of the Ganges in the plains, are, doubtless, owing to the looseness of the soil: and (I think) the proof of it is, that they are perpetually changing; which shows, originally induced by an inequality of surface, can seldom, or never do^a.

I can easily suppose, that if the Ganges was turned into a straight canal, cut through the ground it now traverses in the most winding parts of its course, its straightness would be of short duration. Some yielding part of the bank, or that which happened to be the most strongly acted on, would first be corroded or dissolved; thus a bay or cavity would be formed in the side of the bank. This begets an inflection of the current, which, falling obliquely on the side of the bay, corrodes it incessantly. When the current has passed the innermost part of the bay, it receives a new direction, and

^a It has been remarked, that the course of rivers become more winding as they approach the sea. This, I believe, will only hold good in so far as to the water part of their course through a sandy soil. In the Ganges, and other rivers subject to considerable variations in the bulk of their streams, the best marks of the vicinity of the sea, are, the looseness of the river banks, and the increasing mudiness of the shallows in its bed.

is thrown obliquely towards the opposite side of the canal, depositing in its way the matter excavated from the bay, and which begins to form a shallow or bank contiguous to the border of the canal. Here then is the origin of such windings as owe their existence to the nature of the soil. The bay, so corroded, in time becomes large enough to give a new direction to the body of the canal: and the matter excavated from the bay, is so disposed as to assist in throwing the current against the opposite bank; where a process, similar to that I have been describing, will be begun.

The action of the current on the bank will also have the effect of deepening the border of the channel near it; and this again increases the velocity of the current in that part. Thus would the canal gradually take a new form, till it became what the river now is. Even when the windings have lessened the descent one half, we still find the current too powerful for the banks to withstand it.

There are not wanting instances of a total change of course in some of the Bengal rivers *. The *Chut* river (equal to the Rhine) once ran by Purneah, and joined the Ganges opposite Rajmahal. Its junction is now 45 miles higher up. Gour, the ancient capital of Bengal, stood on the old bank of the Ganges: although its ruins are 4 or 5 miles from the present bank.

Appearances favour very strongly the opinion, that the Ganges had its former bed in the tract now occupied by the lakes and morasses between *Blactore* and *Jahangunge*, rising out of its present course at *Banckah*, and passing by *Phootwah*. With an equal degree of probability (favoured by tradition) we may trace its supposed course by *Dacca*, to a junction with the *Burrampootee* or *Megna* near *Fringybar*; where the accumulation of two such mighty streams, probably scooped out the present amazing bed of the *Megna* †. See plate II.

* The *Mourey* here is one of the windings of a former channel of the *Coolahazar* river.

† *Megna* and *Burrampootee* are names belonging to the same river in different parts of its course. The *Megna* falls into the *Burrampootee*; and, through a much smaller river, communicates its name to the other during the rest of its course.

In tracing the sea coast of the delta, we find no less than eight openings, each of which, without hesitation, one pronounces to have been in its time the principal rapids of the Ganges. Nor is the occasional deviation of the principal branch, probably, the only cause of fluctuation in the dimensions of the delta. One observes that the deltas of many capital rivers (the tropical ones particularly) encroach upon the sea. Now, is not this owing to the mud and sand brought down by the rivers, and gradually deposited, from the remotest ages down to the present time? The rivers, we know, are loaded with mud and sand at their entrance into the sea; and we all know, that the sea recovers its transparency at the distance of twenty leagues from the coast; which can only arise from the waters having precipitated their earthy particles within that space. The sand and mud banks at this time, extend twenty miles off some of the islands in the mouth of the Ganges and Gurrampooter, and rise in many places within a few feet of the surface. Some future generation will probably see these banks rise above water, and succeeding ones possess and cultivate them! Next to earthquakes, perhaps the floods of the tropical rivers produce the quickest alterations in the face of our globe. Extensive islands are formed in the channel of the Ganges, during a winter, far short of that of a man's life; so that the whole process is completed in a period, that falls within the compass of his observation*. Some of these islands, four or five miles in extent, are formed at the angular turnings of the river, and were originally large sand banks thrown up round the points (in the manner before described) but afterwards insulated by breaches of the river. Others are formed in the straight parts of the river, and in the middle of the stream; and owe their origin to some obstruction lurking at the bottom. Whether this be the fragments of the river bank; a large tree swept down from it; or

* Accordingly, the laws respecting alluvion are ascertained with great precision.

aunken boat; it is sufficient for a foundation: and a heap of mud is quickly collected below it. This accumulates amazingly fast: in the course of a few years it rises above water, and having now usurped a considerable portion of the channel, the river burrows on each side to supply the deficiency in its bed; and in such parts of the river we always find deep banks on both sides. Each periodical flood brings an addition of matter to this growing island, increasing it in height as well as extension, until its top is perfectly on a level with the banks that include it: and at that period of its growth it has mould enough on it for the purposes of cultivation, which is owing to the mud left on it when the waters subside, and is indeed a part of the economy which nature observes in fertilizing the lands in general.

While the river is forming new islands in one part, it is sweeping away old ones in other parts. In the progress of this destructive operation, we have opportunities of observing, by means of the sections of the falling bank, the regular distribution of the several *strata* of mud and earth, lying above one another in the order in which they descend in gravity. As we can only owe this disposition to the agency of the stream that deposited them, it would appear, that those substances are suspended at different heights in the stream, according to their respective gravities. We never find a stratum of earth under one of sand, for the muddy particles float nearest the surface. I have counted seven distinct strata in a section of one of these islands. Indeed, not only the islands, but most of the river banks wear the same appearance: for as the river is always changing its present bed, and verging towards the site of some former one now obliterated, this must necessarily be the case.

* This evidently points out the necessity of preventing encroachments on a river bank in the fragrant parts of its course, in order to prevent the shallows that accumulate in the middle of the channel.

† A glass of water taken out of the Ganges, when at its height, weighs about one part in four of mud. No wonder then that the standing waters should quickly form a stratum of earth; or that the delta should march upon the sea.

As a strong presumptive proof of the wandering of the Ganges from the one side of the delta to the other, I must observe, that there is no appearance of orange earth between the Tipperah Hills on the east, and the province of Burdwan on the west; nor on the north till we arrive at Dacca and Banahat. In all the sections of the numerous creeks and rivers in the delta, nothing appears but sand and black mould in regular strata, till we arrive at the clay that forms the lower part of their beds. There is not any substance so coarse as gravel either in the delta or nearer the sea than 400 miles*, where a rocky point, a part of the base of the neighbouring hills, projects into the river: but out of the vicinity of the great rivers the soil is either red, yellow, or of a deep brown.

I come now to the particulars of the annual swelling and overflowing of the Ganges.

It appears to owe its increase as much to the rain water that falls in the mountains contiguous to its source, and to the sources of the grey northern rivers that fall into it, as to that which falls in the plains of Hindoostan; for it rises fifteen feet and a half out of thirty-two (the sum total of its rising) by the latter end of June: and it is well known, that the rainy season does not begin in most of the flat countries till about that time. In the mountains it begins early in $\frac{1}{2}$ April; and by the latter end of that month, when the rain water has reached Bengal, the rivers begin to rise, though by very slow degrees; for the increase is only about an inch per

* At Cuddalore.

† An opinion has long prevailed, that the swelling of the Ganges, previous to the commencement of the rainy season in the flat countries, is owing to a great number of small rivulets of the snow in the mountains. I will not go so far as to disprove the fact; but can by no means suppose, that the quantity of these waters bears any proportion to the increase of the river.

‡ The vast collection of vapours, raised from the sea by the southerly wind, which is motioned, and suddenly stopped by the high range of mountains that run from east to west through Tibet. It is obvious, that the accumulation and condensation of these vapours, must first happen in the neighbourhood of the oblique; and afterwards in places more remote, as fresh supplies arrive at all the intermediate. Hence the periods of commencement of the rainy season in places that lie south of the mountains.

day for the first fortnight. It then gradually augments to two and three inches before any quantity of rain falls in the flat countries; and when the rain becomes general, the average on a medium is five inches per day. By the 15th or end of July all the lower parts of Bengal, contiguous to the Ganges and Burmahpoor, are overflowed, and form an inundation of more than a hundred miles in width; nothing appearing but villages and trees, excepting very rarely the top of an elevated spot (the artificial mound of some deserted village) appearing like an island.

The inundations in Bengal differ from those in Egypt in this particular, that the Nile overflows *entirely* to the rain-water that falls in the mountains near its source; but the inundations in Bengal are as much occasioned by the rain that falls there, as by the waters of the Ganges; and is a proof of it, the lands in general are overflowed to a considerable height long before the bed of the river is filled. It must be remarked, that the ground adjacent to the riverbank, to this extent of some miles, is considerably higher than the rest of the country*, and serves to separate the waters of the inundation from those of the river until it overflows. This high ground is in some places covered a foot or more; but the height of the inundation within varies, of course, according to the irregularities of the ground, and is in some places twelve feet.

Even when the inundation becomes general, the river still shows itself, as well by the grass and reeds on its banks, as by its rapid and maddy stream; for the water of the inundation acquires a blackish

* All the rivers that are situated within the limits of the monsoons, or during twice a year are subject to this disease; as annually flood waters, like the Ganges; and these periods return during the action of the wind (not being removed from the soil, which in Bengal, is all the southern one) and this being periodical, the falls of rain must necessarily be so too.

The northerly wind, which blows only over the land, is dry, for no rain (except casual showers) falls during the continuance of that season.

* This property of the soil is well illustrated too by JOHN HUTTON, who imputes it to the precipitation of mud made by the waters of the river, where it overflows. The inundation, says his author still as it flows over the plains, and the precipitation must be greater on the parts nearest to the margin of the river.

hue, by having been so long stagnant among grass and other vegetables: nor does it ever lose this tinge, which is a proof of the predominance of the rain water over that of the river; as the flow rate of motion of the inundation (which does not exceed half a mile per hour) is of the remarkable slowness of the country.

There are particular tracts of lands, which, from the nature of their culture, and species of productions, requires less moisture than others; and yet, by the lowness of their situation would remain too long inundated, were they not guarded by dikes or dykes, from its copious inundation as would otherwise happen, from the great elevation of the surface of the river above them. These dikes are kept up at an enormous expence, and yet do not always succeed, for want of tenacity in the soil of which they are composed. It is calculated that the length of these dikes collectively, amounts to more than a *two* English miles. Some of them, at the late, are equal to the thickness of an ordinary rampart. One particular branch of the Ganges, (navigable only during the rainy season, but then equal to the Thames at Chertsey) is conducted between two of these dikes, for about 70 miles: and when full, the passengers in the boats, look down on the adjacent country, as from an eminence.

During the swollen state of the river, the tide totally loses its effect of counteracting the stream; and in a great measure that of ebbing and flowing, except very near the sea. It is not uncommon for a strong wind, that blows up the river for any continuance, to swell the waters two feet above the ordinary level at that season: and such accidents have occasioned the loss of whole crops of rice*. A very tragical event happened at Luckipour † in 1763, by a strong

* The rice I speak of is of a particular kind, for the growth of it still keeps pace with the increase of the flood in ordinary times, but is deluged by a too sudden rise of the water. The harvest is often reaped in boats. There is also a kind of grass which overtops the flood in the same manner, and in a small distance has the appearance of a field of the richest verdure.

† About fifty miles from the sea.

gale of wind conspiring with a high rising tide, at a season when the periodical flood was within a foot and half of its highest pitch. It is said that the watery rose six feet above the ordinary level. Certain it is, that the inhabitants of a considerable district, with their houses and cattle, were totally swept away; and, to aggravate their distress, it happened in a part of the country which scarce produces a single tree for a drowning man to escape to.

Embarcations of every kind traverse the inundation: these bound upwards, swelling themselves of a direct course and still water, at a season when every stream rushes like a torrent. The wind too, which at this season blows regularly from the south-east*, favours their progress, inasmuch, that a voyage, which takes up nine or ten days by the course of the river when confined within its banks, is now effected in six. Husbandry and grazing are both suspended; and the peasant traverses in his boat, those fields which in another season he was wont to plow; happy that the elevated site of the river banks place the herbage they contain, within his reach, otherwise his cattle must perish.

The following is a table of the gradual increase of the Ganges and its branches, according to observations made at Jellinghy and Dacca.

At Jellinghy				At Dacca.	
			ft. in.	ft. in.	
In May it rose	-	-	6	0	2 4
June	-	-	9	6	4 6
July	-	-	12	6	5 6
In the first half of August	-	-	4	0	1 11
			32	0	14 3

* Although in the year or day of Bengal the monsoon blows from the S S W and S W, yet in the eastern and northern parts of Bengal it blows from the S E to E S E.

These observations were made in a season, when the waters rose rather higher than usual; so that we may take 31 feet for the medium of the increase.

It must be observed, that the Ganges rises in a more considerable degree than the northern rivers that communicate with it, in the lower parts of its course (the Burampooter excepted) and this is evident by the different circumstances that take place on the rising of the waters of the Ganges and Teesta rivers, in the different seasons. The Teesta is a large river which runs almost parallel to the Ganges, for near 150 miles. During the dry season, the waters of the Teesta run into those of the Ganges by two distinct channels, situated about 20 miles from each other; and a third channel at the same time discharges itself into the Megna. But during the season of the floods, the Ganges runs into the Teesta, whose outlet is then confined to the channel that communicates with the Megna. This alone, is sufficient to show how trifling the descent of these rivers must be, whose courses are thus regulated (not by the declivity of their beds, but) by their heights in respect to each other; which, like the flux and reflux of the tide, have the effect of giving contrary directions to the stream, at different seasons.

The inundation is nearly at a stand for some days preceding the middle of August, when it begins to run off; for although great quantities of rain fall in the flat countries, during August and September, yet, by a partial cessation of the rains in the mountains, there happens a deficiency in the supplies necessary to keep up the inundation*. The quantity of the daily decrease of the river is nearly in the following proportion; during the latter half of August, and all September, from three to four inches; from Septem-

* I have fixed the middle of August for the period when the waters begin to run off, and in general it happens with as much regularity at the vicissitudes of the seasons do. But there are exceptions to it; for in the year 1794 the river kept up for many months after the usual time.

ber to the end of November, it gradually lessens from three inches to an inch and a half; and from November to the latter end of April, it is only half an inch *per* day as a medium. These proportions must be understood to relate to such parts of the river as are removed from the influence of the tides; of which more will be said presently. The decrease of the inundation does not always keep pace with that of the river, by reason of the height of the banks; but after the beginning of October, when the rain has nearly ceased, the remainder of the inundation goes off quickly by evaporation, leaving the lands slightly matted, and in a state fit to receive the seed after the simple operation of plowing.

There is a circumstance attending the increase of the Ganges, and which, I believe, is little known or attended to; because few people have made experiments on the heights to which the periodical flood rises in different places. The circumstance I allude to, is, the difference of the quantity of the increase (as expressed in the foregoing table) in places more or less remote from the sea. It is a fact, confirmed by repeated experiments, that from about the place where the tide commences, to the sea, the height of the periodical increase diminishes gradually, until it totally disappears at the point of confluence. Indeed, this is perfectly conformable to the known laws of fluids: the ocean preserves the same level at all seasons (under similar circumstances of tide) and necessarily influences the level of all the waters that communicate with it, unless precipitated in the form of a cataract. Could we suppose, for a moment, that the increased column of water, of 31 feet perpendicular, was continued all the way to the sea, by some preternatural agency: whenever that agency was removed, the head of the column would diffuse itself over the ocean, and the remaining part would follow, from as far back as the influence of the ocean extended; forming a slope, whose perpendicular height would be 31 feet. This is the precise state in which we find it. At the point of junction with the

sea, the height is the same in both seasons at equal times of the tide. At Luckipour there is a difference of about six feet between the heights in the different seasons; at Dacca, and places adjacent, 14; and at Cussée, 31 feet. Here then is a regular slope, for the distances between the places bear a proportion to the respective heights. This slope must add to the capacity of the stream, for, supposing the descent to have been originally four inches *per* mile, this will increase it to about five and a half. Cussée is about 240 miles from the sea, by the course of the river; and the surface of the river there, during the dry season, is about 80 feet above the level of the sea at high water*. Thus far does the ocean manifest its dominion in both seasons: in the one by the ebbing and flowing of its tides; and in the other by depressing the periodical flood, till the surface of it coincides as nearly with its own, as the descent of the channel of the river will admit†.

Similar circumstances take place in the Jellinguy, Hooghly, and Burrampooter rivers; and, I suppose, in all others that are subject either to periodical or occasional swellings.

Not only does the flood diminish near the sea, but the river banks diminish in the same proportion; so that in the dry season the height of the periodical flood may be known by that of the bank.

I am aware of an objection that may be made to the above solution; which is, that the lowness of the banks in places near the sea, is the true reason why the floods do not attain so considerable a

* The tides in the river Amazon are 40 feet higher at its mouth; but at an elevation of only 50 feet, according to M. DE CONQUÉVILLE. It remains to be seen what the force of the river was at the time of making the measurements; because the high floods have the effect of shortening the front of the eddy way.

† The Count DE BUREAU has rightly mentioned the circumstance attending the swelling of rivers; but imputes it to the increased velocity of the current, as the river approaches the sea, which, says he, carries off the sediments so quick, as to abate its height. Now (with the smallest difference to its great advantage) I can never perceive, that the current, either in the Ganges, or any other river, was stronger near the sea than at a distance from it. Every river must an acceleration of the current during the ebb tide, the day records it to a considerable degree, as at least to counter-balance the effect produced by the temporary increase of velocity.

height, as in places farther removed from it, and where the banks are high; for that the river, wanting a bank to confine it, diffuses itself over the surface of the country. In answer to this, I shall observe, that it is proved by experiment, that at any given time, the quantity of the increase in different places, bears a just proportion to the sum total of the increase in each place respectively: or, in other words, that when the river has risen three feet at Dacca, where the whole rising is about 14 feet; it will have rose upwards of six feet and a half at Cales, where it rises 31 feet in all.

The quantity of water discharged by the Ganges, in one second of time, during the dry season, is 50,000 cubic feet; but the river, when full, having thrice the volume of water in it that it had at the time when the experiment was made, and its motion being still accelerated in the proportion of 5 to 3: the quantity discharged in a second at that season is 250,000 cubic feet. If we take the medium the whole year through, it will be nearly 180,000 cubic feet in a second.

THE *Brahmapootra*, which has its source from the opposite side of the same mountains that give rise to the Ganges, first takes its course eastward (or directly opposite to that of the Ganges) through the country of Thibet, where it is named *Sanpoo* or *Zancin*, which bears the same interpretation as the Gonga of Hindoostan; namely, THE RIVER. The course of it through Thibet, as given by Father DE HALLET, and formed into a map by Mr. D'ANVILLE, though sufficiently exact for the purposes of general geography, is not particular enough to ascertain the precise length of its course. After winding with a rapid current through Thibet, it washes the

border of the territory of Lassa (in which is the residence of the grand Lama;) and then deviating from an east to a south-east course, it approaches within 200 miles of Yunnan, the westernmost province of China. Here it appears, as if undetermined whether to attempt a passage to the sea by the Gulf of Siam, or by that of Bengal; but seemingly determining on the latter, it turns suddenly to the west through Assam, and enters Bengal on the north-east. I have not been able to learn the exact place where it changes its name; but as the people of Assam call it *Burrampoor*, it would appear, that it takes this name on its entering Assam. After its entry into Bengal, it makes a circuit round the western point of the Garrow Mountains; and then, altering its course to south, it meets the Ganges about 40 miles from the sea.

Father Du Halles expresses his doubts concerning the course that the *Sampoo* takes after leaving Thibet, and only supposes generally that it falls into the gulf of Bengal. M. D'Anville, his geographer, not without reason, supposed the *Sampoo* and *Ava* rivers to be the same; being justified by the information which his materials afforded him: for the *Burrampoor* was represented to him, as one of the inferior streams that contributed its waters to the Ganges, and not as its equal or superior; and this was sufficient to direct his researches, after the mouth of the *Sampoo* river, to some other quarter. The *Ava* river, as well from its bulk, as the bent of its course for some hundred miles above its mouth, appeared to him to be a continuation of the river in question: and it was accordingly described as such in his maps, the authority of which was justly esteemed as decisive; and, till the year 1765, the *Burrampoor*, as a capital river, was unknown in Europe.

On tracing this river in 1765, I was no less surprized, at finding it rather larger than the Ganges, than at its course previous to its entering Bengal. This I found to be from the east, although all the former accounts represented it as from the north: and this un-

expected discovery soon led to enquiries, which furnished me with an account of its general course to within 100 miles of the place where Du Haldé left the Sampoo. I could no longer doubt, that the Burrampooter and Sampoo were one and the same river: and to this was added the positive assurances of the Affinats, "That *their* " river came from the north-west, through the Boetan mountains." And to place it beyond a doubt, that the Sampoo river is not the same with the river of Ava, but that this last is the great *Nou Kian* of Yunnan; I have in my possession a manuscript draught of the Ava river; to within 120 miles of the place where Du HALDÉ leaves the *Nou Kian*, in its course towards Ava; together with very authentic information that this river (named *Irabatty* by the people of Ava) is navigable from the city of Ava into the province of Yunnan in China*.

The Burrampooter, during a course of 400 miles through Bengal, bears so intimate a resemblance to the Ganges, except in one particular, that one description may serve for both. The exception I mean, is, that during the last 60 miles before its junction with the Ganges, it forms a stream which is regularly from four to five miles wide, and but for its freshness might pass for an arm of the sea. Common description fails in an attempt to convey an adequate idea of the grandeur of this magnificent object; for,

——— Scarce the muse

Dares stretch her wing o'er this enormous mass.

Of rushing water: to whose dread expanse,

Continuous depth, and wondrous length of course,

Our floods are rills —————

THOMPSON'S Seasons.

* My information comes from a person who had resided at Ava. See the *Memoir*, page 225, and of the *Modern Chinese*, vol. 5, page 209. The course of the Burrampooter and Ganges, as well as that of the Ava river from Yunnan to the sea, are described in the map of *MINNAN*, page.

I have

I have already endeavoured to account for the singular breadth of the Megna, by supposing that the Ganges once joined it where the Issamutty now does; and that their joint waters scooped out its present bed. The present junction of these two mighty rivers below Luckipour, produces a body of running fresh water, hardly to be equalled in the old hemisphere; and, perhaps, not exceeded in the new. It now forms a gulf interspersed with islands, some of which rival, in size and fertility, our isle of Wight. The water at ordinary times is hardly brackish at the extremities of these islands; and, in the rainy season, the sea (or at least the surface of it) is perfectly fresh to the distance of many leagues out.

The *bore* (which is known to be a sudden and abrupt influx of the tide into a river or narrow strait) prevails in the principal branches of the Ganges, and in the Megna; but the Hoogly river, and the passages between the islands and sands situated in the gulf, formed by the confluence of the Ganges and Megna, are more subject to it than the other rivers. This may be owing partly, to their having greater *embouchures* in proportion to their channels, than the others have, by which means a larger proportion of tide is forced through a passage comparatively smaller, and partly, to there being no capital openings near them, to draw off any considerable portion of the accumulating tide. In the Hoogly or Calcutta river, the *bore* commences at Hoogly Point (the place where the river first contracts itself) and is perceptible above Hoogly town; and so quick is its motion, that it hardly employs four hours in travelling from one to the other, although the distance is near 70 miles. At Calcutta, it sometimes occasions an instantaneous rise of five feet: and both here, and in every other part of its track, the boats, on its approach, immediately quit the shore, and make for safety to the middle of the river.

In the channels, between the islands in the mouth of the Megna, &c. the height of the *bore* is said to exceed twelve feet; and is so

terrific in its appearance, and dangerous in its consequences, that no boat will venture to pass at spring tide. After the tide is fairly past the islands, no vestige of a *bore* is seen, which may be owing to the great width of the Megna, in comparison with the passages between the islands; but the effects of it are visible enough, by the sudden rising of the tides.

THE rivers are in a tranquil state, from the time of the change of the monsoon in October, to the middle of March; when the *north-easters* begin in the eastern parts of BENGAL (though later as we advance westward) and may be expected once in three or four days until the commencement of the rainy season. These *north-easters*, which have their denomination from the quarter they usually originate in, are the most formidable enemies that are met with in this inland navigation; they being sudden and violent squalls of wind and rain; and though of no long duration, are often attended with fatal effects, if not carefully guarded against; whole fleets of trading-boats having been sunk by them, almost instantaneously. They are more frequent in the eastern, than in the western part of BENGAL; and happen oftener towards the close of the day, than at any other time. As they are indicated some hours before they arrive, by the rising and very singular appearance of the clouds, the traveller has commonly time enough to seek a place of shelter. It is in the great rivers alone, that they are so truly formidable; and that about the latter end of May, and beginning of June, when the rivers are much increased in width.

After the commencement of the rainy season (which period varies in different parts, from the middle, to the end of June) impetuous weather must be occasionally expected. Places of shelter are more

common at this season, than at any other, by the filling of the creeks and inlets, as the river increases: and, on the other hand, the bad weather, when it happens, is of longer continuance than during the season of the northwester. The rivers being now spread to the breadth of several miles, a strong wind has the power of raising large waves on them, and particularly when blowing in a contrary direction to the rapid parts of the stream; which at such times should be avoided, as much from motives of conveniency, as of safety.

During the long interval between the end of the rainy season, and the beginning of the northwester, one proceeds in security with respect to weather, and has only to observe a common degree of attention to the piloting the boat clear of shallows, and stumps of trees. These will generally be avoided by keeping nearest to the side that has the steep bank; but not so near, as to be within the verge of its inferior slope. This steep bank (see page 261) has the deepest water, and the strongest current near it; and is therefore, on both accounts, the proper side to keep on, when going down with the stream; as its rate of motion must principally determine that of the boat; for the motion acquired by the oars of a large *budgerow* * hardly exceeds 8 miles a day, at ordinary times.

From the beginning of November to the middle or latter end of May, the usual rate of going *with* the stream, is forty miles in a day of 12 hours; and during the rest of the year, from 50 to 70 miles. The current is strongest while the waters of the inundation are draining off; which happens in part of August and September.

In many of the shallow rivers, the current is exceedingly slow during the dry months; insomuch, that the track-rope is frequently used in going downwards.

* A travelling boat, constructed somewhat like a pleasure-barge. Some have cabins 14 feet wide, and proportionably long; and draw from 4 to 5 feet water.



PLAN of part of the course of the GANGES, to explain the nature of the steep and shelving Banks, Islands, &c.



SECTION of a Branch of the GANGES, as a further explanation of the steep and shelving Banks.



Published according to Act of Parliament June 26 1841.

In towing *against* the stream, the steep side is also generally preferred, on account of the depth of water; although the current runs so much stronger there, than on the opposite side. On these occasions, one ought to be provided with a very long track-rope, as well to avoid the falling pieces of the steep bank on the one side, as the shallow water on the other, when it becomes necessary to change sides, through the badness of the tracking ground. The anchor should always be kept ready for dropping, in case the track-rope breaks.

Seventeen, to twenty miles a day, according to the ground, and the number of impediments, is the greatest distance that a large barge can be towed against the stream, during the fair season; and to accomplish this, the boat must be drawn at the rate of four miles and a half per hour, through the water, for 12 hours. When the waters are high, a greater progress will be made, notwithstanding the increased velocity of the current; because the filling of the river-bed gives many opportunities of cutting out angles and turnings, and sometimes even large windings, by going through creeks. And as the wind at this season, blows upwards in most of the rivers, opportunities of using the fair frequently occur.

In the very singular navigation across the *Jah*, or inundation, between Dacca and Nattore, &c. in which 100 miles or more, are sailed on nearly a straight course, leaving the villages and groves to the right and left; little difficulty occurs, unless the wind should fall; for while it continues to blow, it is always fair, during the season of the inundation. The current presents only a trifling obstacle, since its motion (which is nearly parallel to the course of the Ganges) is seldom half a mile per hour.

The season of the *northwesters*, is, above all others, that which requires the most attention and care. Should one of those equalis approach, and no creek or inlet offer for shelter, when in the wide

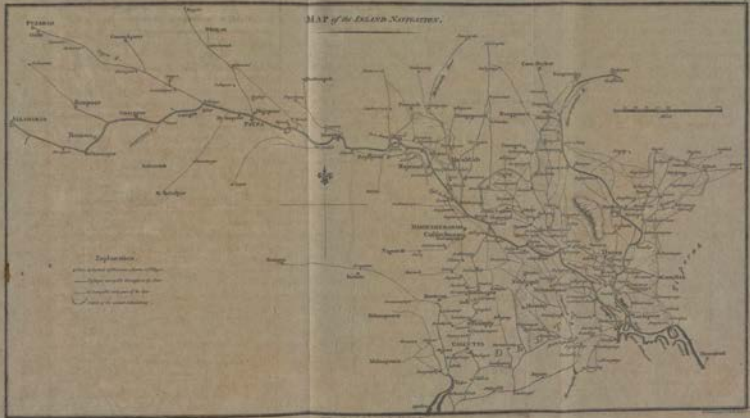
rivers; the steep bank, if not in a *crumbling* state *, should always be preferred to the flat one, whether it lie to windward or leeward. If the bank be in a crumbling state, a retreat to a firm part of it, (which is most likely to be found in the straightest parts of the river) should be attempted. But if this cannot be done, the flat side must be taken up with; and if it be a *lee-shore*, the anchor should be thrown out to prevent driving on it. In these cases the mast is always supposed to be struck; and provided this be done, and the cargo judiciously disposed, it is probable that a well-constructed barge or scow will be in no danger of upsetting by the mere force of the wind alone: although by an unfortunate, or an ill-chosen situation, it may be so much exposed to the waves, as to be filled and sunk by them. At this season, every traveller should be particularly attentive to the nature of the river-bank, as well as to the appearance of the horizon, during the last hours of the afternoon; and if he finds a place of shelter, he should stop for the night: and not hesitate about losing time, which may be retrieved the next morning, by setting out so much earlier. The boatmen work with much more alacrity on this plan; because they have day-light before them to secure their boat, provide fuel, and dress and eat their provisions.

As the water is always either rising or falling within the beds of the rivers, it is impossible for a man to assign precisely where a place of shelter shall be found, at any given time. Thus much, however, may be concluded, that in a place where the junction of two considerable channels is effected when the rivers are up, there will be an inlet, or deep bay, throughout the dry season, although one of the channels should be dried up. The waters (as we have said before) are rising from the latter end of April, to the middle of August: and falling during the rest of the year.

The navigation through THE WOODS, or SUNDERBUNDS, is effected chiefly by means of the tide. In the large rivers, or those

* See page 207, and the second note in the same page.

MAP of the ISLAND of KAPPAKOTTA.



that communicate immediately with the sea, the circumstances of the tide are more analagous to the ordinary course of it, than in the small lateral channels which serves to connect the great rivers together; the motion of the tide in those small channels, being regulated by the positions of their openings into the rivers. For if two rivers of equal bed and parallel course, are united by a lateral or cross canal, the flood tide will enter that opening of the canal which lies nearest to the sea, and run through it into the other river; and the ebb tide *vice versa*. But as the arrival of the tide depends on the capacity and formation of the rivers, as well as on the absolute distance it has to run, it will not be an easy matter to determine its direction at any given time, even with the help of a map.

There are two distinct passages through the Sunderbunds, the one named the southern or **SUNDERBUND PASSAGE**, the other the **BALINGOR PASSAGE**. The first is the farthest shore, and leads through the deepest and widest rivers; and is of course, the most exposed during tempestuous weather. It opens into the Calcutta river, thro' Channel Creek*, about 65 miles below the town. The Balingor Passage opens into a lake on the east side of Calcutta; from whence, within a very few years, a small canal has been cut to join the lake with the river.

These passages present to the imagination both a grand and a curious spectacle: a navigation of more than 200 miles through a forest, divided into numberless islands by a continued labyrinth of channels, so various in point of width that a vessel has at one time her masts almost entangled in the trees: and at another, sails uninterruptedly on a spacious river, beautifully skirted with woods, and affording a vista of many miles each way. The water is every where salt; and the whole extent of the forest abandoned to wild beasts: so that the shore is seldom visited but in cases of necessity; except

* A part of this Creek forms the place known of late by the name of New HASBEE.

by the wood-cutters and salt-makers whose "dreadful trade" is exercised at the constant peril of their lives: for the tygers not only appear on the margin in quest of prey, but often, in the night time, swim to the boats that lie at anchor in the middle of the river.

These passages are used during the whole year, by those who go to and from the lower parts of the Ganges and Calcutta, &c: and during the season when the western branch of the Ganges is almost dried up, the whole trade of Bengal (the western provinces excepted) passes either by Channel-creek, or Baliagot, but chiefly by the former; some articles of the Company's cargoes being brought more than 900 miles by water, at this season.

EXPLANATION of PLATE, N^o. I.

A. A. A. Steep Banks, corroded by the current; the fragments of which are deposited, and form the Banks B. B. B.

C. A land Bank, accumulating to an Island. This once joined to D; till insulated by a breach of the river.

E. An Island, formed and inhabited. This also was a land bank, thrown up round the point F.

G. An Island accumulating in the midst of the Channel.

H. The line of the strongest current.

I. A Gulf occasioned by the force of the current, from the opposite side, striking against the Bank: the origin of a future branch issuing from the great river. In a course of time, the first reach of it becomes retrograde to the course of the river (see note, page 263) as at K and L.

N. B. The section of the Branch of the Ganges is exactly similar to that of the Ganges itself, except in the article of width.

P O S T S C R I P T.

CORRECTION of the GEOGRAPHY of the INDUS, and its DELTA, &c.

SINCE the Memoir was printed, some better information respecting the country of Sindy, and the river Sinde * (or Indus) than what appears in page 80, has been most obligingly communicated by a person of character, who resided some time in that country, in the service of the East India Company. The delta, and course of the river, have in consequence, been corrected in the map: but the *form* of the coast has undergone no change, although the position of it, has; for Ritchel and Cape Monze are removed several miles further to the south, while their former distance from Jigat Point is preserved. Cape Monze now stands in lat. $24^{\circ} 55'$, lon. $65^{\circ} 46'$: Ritchel, in lat. $24^{\circ} 14'$ (it was $24^{\circ} 12'$ by Capt. Scott's observations) and the mouth of Larry-Bunder river, which was the principal channel of the Indus, during the last century, and early in the present one, is in lat. $24^{\circ} 44'$: being within one minute of the parallel assigned it, by the India pilot.

The city of Tatta, the capital of the province of Sindy, and supposed to be near the site of the *Pattala* † of the ancients, is situated, according to the idea of the abovementioned gentleman, about 38 G. miles to the north of Ritchel, and 50 to the east of

* Mr. Wilkins takes the proper name of this river to be *Saukthoo*. Hecetopades, page 333.

† It is impossible to fix the exact site of Pattala, as there are properly two deltas, a superior and an inferior one; exclusive of the many islands formed by the Indus when it approaches the sea. Tatta is near the head of the *inferior* delta; and the ancient accounts mention only one great delta, having Pattala at the upper angle of it. In Ptolemy's map (Asia, Tab. XX) Pattala is placed very far below the place, where the Indus first begins to separate into branches.

it: so that it ought to be in lat, $24^{\circ} 50'$, lon. $67^{\circ} 37'$, and about 125 miles from the sea, by the course of the river*. According to M. Thevenot, it is three days journey from Larry-Bunder town, which according to Capt. Hamilton, is 5 or 6 leagues from the sea. M. Thevenot's 3 days journey may be taken at 54 G. miles of horizontal distance; and the whole distance of Tatta, from the mouth of Larry-Bunder river, at about 68 G. miles: and this does not disagree with the account given above.

According to a MS. itinerary (kept by N. Whittington, no date to it) Tatta is about 180 cosses from Radimpour on the Poddar river; and 228 from Amedabad, passing through Radimpour. This last town is placed in the new map, chiefly on the authority of Mr. Hornby's MS. map of Guzerat, mentioned in page 149: and 180 cosses, laid off from it, would place Tatta about 22 G. miles further to the west, than the position assigned it above; provided that the general direction of the road, was straight: but it appears by the ideas of Janfen and Blaeu, who have severally described this road, that it bends greatly to the south; and therefore will accord very well with the above *data*: and it may be concluded, on the whole, that the longitudes of Tatta and of Cape Monze, are not far from the truth. The route in question, goes by the village of Negar-Parkar, and by the town of Nuraquimire; and through part of the territory of Cutch: it crosses the great sandy desert also.

It is not to be expected that any particular account of the number and positions of the several branches and mouths of the Indus, should exist, unless a survey of them had previously been made. All the information that I have been able to obtain on the subject,

* These are the particulars: From Ritchel to Shahbunder, about 40 miles by the course of the river, the bearing, much eastwardly. Thence to Aurungabunder, 25 more (but by land only 10 or 12) the course somewhat more northwardly. Thence to Tatta, 64 miles, N N E, or N E by N. The windings of the river are supposed to reduce the distance, on a straight line, to 63 G. miles. The latitude of Tatta, is supposed to be something more than $24^{\circ} 40'$; the construction, according to these *data*, makes it $24^{\circ} 50'$.

respects three of them only; and is as follows. About 170 miles from the sea, by the course of the river, the Indus divides into two branches; of which the westernmost is by much the largest. This branch, after a course of about 50 miles, to the S W, divides into two more; the smallest of which runs on a W S W course, to Larry-Bunder, and Darraway; and the largest, taking the name of the Ritchel river, runs on a more southwardly course to the town or village of Ritchel, on the sea coast. (Tatta is situated within this inferior delta, and about five miles below the upper angle of it.) The third branch remains to be mentioned, and is that which bounds the eastern side of the superior delta; separating as is said above, at about 170 miles from the sea. It is smaller than the Ritchel river; but larger than that of Larry-Bunder; and by circumstances, and by report, it opens into the mouth of the gulf of Cutch, nearly opposite to Jigat Point; its course being somewhat to the eastward of south.

From these *data*, together with the aid of the chart of the coast, it may be collected, that the delta of the Indus is about 150 British miles in length, along the sea coast; and about 115 in depth, from the place of separation of the superior branches of the river, to the most prominent point of the sea coast. Arrian (after Nearchus) reckons the first distance 1800 * stadia; and Pliny 220 Roman miles: that is, he reckoned about 8 of those stades to a mile.

The lower part of this delta is intersected by rivers and creeks, in almost every direction, like the delta of the Ganges; but unlike that, it has no trees on it; the dry parts being covered with brush-wood; and the remainder, by much the greatest part, being noisome swamps, or muddy lakes. A minaret, at the mouth of Ritchel river, serves for a mark for the road; which, from the flatness and sameness of the appearance of the coast, could not other-

* It appears from Strabo, that Arrian allowed only 2000 stadia for the base of the delta.

wife be discriminated. The upper part of the delta is well cultivated, and yields abundance of rice.

From the ideas generally entertained concerning the nature, and treatment of camels, it would not be expected that this delta, and especially that part of it, nearest to the sea, should be set apart for the breeding of those animals. It is, however the case, and the tender parts of the brush-wood serve them for fodder. It is a remarkable circumstance that the tide should not be visible in this river, at a greater distance than 60 or 65 miles from the sea. The *boras* are high and dangerous in the mouths of the river. (See the Introduction page xxiv.)

The breadth of the Ritchel branch is estimated at one mile, just above the tide; and at Tatta, at only half a mile. It is certain that the Indus is very considerably less than the Ganges. The velocity of its current, is estimated at 4 miles per hour, in the dry season; which I should suppose to be over-rated, unless the declivity be much more than I have an idea of; though indeed, the short course of the tide, upwards, seems to require some such cause.

The province of Sindy in many particulars of soil and climate, and in the general appearance of its surface, resembles Egypt: the lower part of it being composed of rich vegetable mould, and extended into a wide delta; while the upper part of it, is a narrow slip of country, confined on one side by a ridge, or ridges of mountains, and on the other by a sandy desert; the river Indus, equal at least to the Nile, winding through the midst of this level valley, and annually overflowing it. During great part of the S.W. monsoon, or at least in the months of July, August, and part of September, which is the rainy season in most other parts of India, the atmosphere, is here generally clouded, but no rain falls, except very near to the sea. Indeed very few showers fall during the

* Hamilton reckoned it a mile broad, in 1809; and says it was 6 fathoms deep, and that the inundations are in April, May, and June.

whole year. Capt. Hamilton says, that when he visited Tatta, no rain had fallen for 3 years before. Owing to this, and to the neighbourhood of the sandy deserts, which bound it on the east, and on the north-west, the heats are so violent, and the winds from those quarters so pernicious, that the houses are contrived so as to be occasionally ventilated by means of apertures on the tops of them, resembling the funnels of small chimnies. When the hot winds prevail, the windows are closely shut, by which the hottest part of the current of air (that nearest the surface, of course) is excluded; and a cooler part, because more elevated, descends into the house, through the funnels. By this means also, vast clouds of dust are excluded, the entry of which alone would be sufficient to render the houses uninhabitable. The roofs are composed of thick layers of earth, instead of terraces. Few countries are more unwholesome to European constitutions: particularly the lower part of the delta.

Sindy extends along the course of the Indus from its *embouchure* to Behker or Bhakor, on the frontiers of Moultan, and may be reckoned at least 300 B. miles in length, that way. Its breadth is very irregular: it may be about 60 miles in the widest part. On the N.E. lie the territories of the Seiks; and on the north, those of the King of Candahar; on the west is Makran*, a province of Persia, whose Prince is tributary to the King of Candahar. A sandy desert bounds Sindy on the east, and extends the whole way from the territory of Cutch, to the confines of Moultan, being near 550 B. miles in length, and from 100 to 150 wide. P. Wenzell in his account of the Rajpoot's country (or Rajpootana) says, that the country begins to grow sandy, immediately on the west of Agimere: so that the desert must be exceedingly wide in that part. This is the sandy desert mentioned by Herodotus. See page xxii

* Makran, or Mooran, is the ancient GEDROSIA. One of its modern names is *Ketch* or *Kedge*, and is often prefixed to the others, as *Ketch-Makran*. If *Ketch* was in use anciently, it is likely to have given birth to the name *Gedrosia*.

of the Introduction. The fort of Ammercot, the retreat of the Emperor Humayoon, and the birth place of his son Achar (page 151) is situated within this desert. In the *Ayin Aebaree*, it is stated as belonging to the Nusserpour division, of the province of Sindy: *Perishita* reckons it about 100 *coffes* from Tatta. It may reasonably be supposed that this desert contains many habitable tracts or islands, within it, like the *Oases* * of the Lybian deserts.

The city of Tatta, the position of which we have described above, was, in the last century, very extensive and populous, and was a place of great trade; possessing manufactures of silk, carmin wool, and cotton: and was also celebrated for its cabinet ware. Little of these now remain, and the limits of the city are very much circumscribed. On the shores of the Indus, above the delta, considerable quantities of saltpetre are made: and within the hilly tract, which commences about three miles on the N W of Tatta, are found mines of iron, and salt. The ruins of a city, supposed to be *Brannabad*, lie within 4 miles of Tatta.

The river Indus and its branches, admit of an uninterrupted navigation from Tatta to Moultan, Lahore, and Cashmere; for vessels of near 200 tons; and a very extensive trade was carried on between those places, in the time of Aurungzebe: but at present very little of this trade remains, owing to a bad government in Sindy, and probably to the hostile disposition of the Seiks, the present possessors of Moultan and Lahore. Capt. Hamilton says that boats came from Lahore to Tatta, in 12 days. Had Feroze's canal been completed, there would have been an inland navigation from Tatta to Bengal, and Assam. (See page 72.)

The reader will recollect that Nadir Shah, in 1739, obtained a cession of the province of Sindy, as well as the rest of the Indian provinces, lying on the west of the Indus: and he even visited

* See Savary's Letters on Egypt.

Tatta. Abdalla, when he seized on the provinces, which compose his present empire, retained the sovereignty of Sindy also; and the Prince of this province, is accordingly, tributary to the present King of Candahar, Timur Shah *. The Prince is a Mahomedan, and of Abassynian extraction: his usual place of residence is at the fort of Hydrabad, situated on the Indus, not far above the head of the delta; and in the neighbourhood of the city of Nusserpore. The Hindoos, who were the original inhabitants of Sindy, and were reckoned to outnumber the Mahomedans, in the proportion of 10 to 1, in Capt. Hamilton's time, are treated with great rigour by their Mahomedan Governors; and are not permitted to erect any pagodas, or other places of worship: and this severity drives vast numbers of them into other countries.

The gentleman from whom I had my information concerning the delta of the Indus, &c. went up the Indus as far as the city of Bhakor (or Behker) which is about two-thirds of the way to Moul-tan. He observed the moveable towns or villages on the banks of the river (noticed by Nearchus, and the Ayin Acharee: see Introduction page xxx). Some of these are the habitations of fishermen, and others of graziers: and they are constantly changing their positions like a camp. Few rivers abound more with fish than the Indus does; and among these, are some very delicious sorts.

Among the various tribes, that inhabit the hilly tracts bordering on the western side of the Indus, there is according to my friend's account, one of the name of *Namurdy*. They are of the Mahomedan religion; are freebooters, and very troublesome to the villagers, and travellers. The Ayin Acharee also takes particular notice of this tribe; and states its strength to be 7000 infantry, and 300 horsemen (about the year 1560): This being a part of the tract

* Mr. Fraser, in his account of Nadir Shah, gives a copy of this partition treaty, by which the *Nulla Sunkra*, or *Sunkra* river was to be the common boundary between Hindoostan and the Persian provinces, near the mouth of the Indus. It may then, be inferred, that the eastern branch of the Indus is named the *Sunkra* river.

named INDO-SCYTHIA by the ancients, a doubt arises whether they may not be the descendants of the Scythian NOMADES; if the Scythians on the borders of Mount Imaus, did really call themselves by that name; and that it was not a term applied to them by the Greeks*; alone. It may also be a question whether the graziers abovementioned, may not have derived their custom of moving their habitations, from Scythian ancestors: for the custom, as far as I know, does not prevail in the rest of India.

The upper part of the course of the Indus, is taken from M. D'Anville's map of Asia, as I know of no better authority. The towns on its banks are taken chiefly from the itinerary, mentioned in page 68; as is also the point of conflux of the Setlegs (or Sututuluz) with the Indus. The latitude of Behker is given at $27^{\circ} 12'$ in this itinerary, which I have corrected to $27^{\circ} 32'$; for reasons given in pages 68 and 80. Finding Hajykan mentioned as one of the districts belonging to Sind, in the Ayin Acbaree, and it being very clear that a large province of the same name, lies on the west of the Indus, opposite to Moultan, I can no otherwise reconcile these two accounts, than by supposing that Hajykan extends southward, along the Indus, until it meets the borders of Sind; and that a small part of it was subject to Sind. In this case, the province of Behker must be confined chiefly to the east side of the Indus. No part of Hajykan is reckoned to belong either to Moultan or Candahar; in the Ayin Acbaree.

Cutch, is a territory of considerable extent, situated on the south-east of Sind; the eastern branch of the Indus separating the two

* The following passage occurs in M. D'Anville's *Eclaircissement Géographique sur la Carte de l'Inde*, p. 42. "On ignore le temps auquel les Scythes sont venus occuper le Sind. Dans le Périple de la mer Erythrée*, la ville de Minnagara, la même que Manfara†, est qualifiée de capitale de la Scythie. Denys Périégète dit, que les Scythes méridionaux, habitent sur le fleuve Indus. Eutatche les nomme Indo-Scythes: & ce que Ptolémée appelle Indo-Scythie, remonte le long de l'Indus jusqu' au sieuve Coas‡.

* The Arabian sea, or sea of Omman.

† Bhakor or Behker, is the same with the ancient Manfara—Ayin Acbaree.

‡ That which runs by Nagaz, and falls into the Indus a considerable distance below Attok; and which, according to my idea, is the Hir of the Persians.

countries. It extends along the northern coast of the gulf of Cutch, and is separated from Guzerat, by the Puddar river, or one of its branches. The present capital, and residence of its Rajah, is Boodge-boodga; and appears to be the place named Booz in Mr. Hornby's map, where it is placed about 34 G. miles to the eastward or E S E of the eastern branch of the Indus. Cutch is composed chiefly of hills, woods, and sandy wilds: and we are utterly ignorant of any particulars relating to the interior part of it. The mouths of several rivers, appear in the map of its coast: and the ancient maps describe the Puddar river as discharging itself into the gulf of Cutch, through these openings. It is possible that the river, formed by the Caggar and other streams, may discharge itself by one or more of these openings; unless it loses itself in the sands of the desert, which borders on the north of Cutch.

On the south coast of the gulf of Cutch is a district inhabited by a piratical tribe named *Sangarians*, who cruise for merchant ships, as far to the west as the entrance of the gulf of Persia. The capital of this state, is Noanagur; and Bate (or Bait) and Aramroy, are its principal ports. The *Ayin Acbaree* takes notice of the founding of Noanagur, by a Rajah who was driven out of Cutch, about 280 years ago: and says that the territory in which it is situated, is named *Little Cutch*. No mention is made of *Sangarians*, in the same book: nor of any piracies being committed by the people of Noanagur.

Neatalius names certain parts of the country between the mouth of the Indus and the river Arabius, *Sangada* and *Saranga*; but the tract was too confined, to be the abode of a nation. M. D'Anville supposes that the country of *Sangada**, was the same with the modern *Sangara*: if so, the Sangarians must first have removed from the western, to the eastern side, of the Indus; and afterwards

* E. Ind. Rem. page 420.

must also have crossed the gulf of Cutch. The latter fact, seems verified by the Ayin Achbaree.

I cannot omit to observe, in this place, how exactly the position and description of the haven, named by Nearchus, *the port of Alexander*; and which had an island near it, named *Crocqla*, agrees with that of *Crotchey*: and proves incontestibly, by the circumstance of the proximity of the mountains to the sea coast, when the fleet had advanced only 150 stadia from the mouth of the Indus, that Nearchus sailed out of the western branch of that river. However, one might conclude, from Arrian's account of Alexander's voyage down the two branches below Pattala, that he fixed on the easternmost branch, for Nearchus's fleet to proceed through, to the ocean; as Arrian calls it the *left* branch: but the circumstance of Alexander's landing, with a *party of horse*, and proceeding three days along the coast, in the direction that his fleet was to sail, that is, westward, overthrows such a supposition entirely: for no one will suppose that he chose to march a party of horse three days, along the coast of the delta, where he must have been continually interrupted by deep rivers and creeks.

CORRECTION of the COAST of ORISSA, in the MAP.

THE arrival of Capt. Ritchie in England, has enabled me to correct that part of the coast, between the mouth of the Kannaaka river (on the north of Point Palmiras) and the most southern branch of the Mahanuddy, or Cattack river; from a tracing of that coast, made by Capt. Ritchie, by order of Mr. Hastings. From this chart it appears, that Point Palmiras is further to the eastward, in respect of Jagarnaut and Balasore, than is warranted by the materials,
dis-

discussed in page 11 : for by the late observations, it ought to be placed (at least) in $87^{\circ} 5'$ longitude, instead of $87^{\circ} 1' 30''$. A reference to the map will best explain the respective positions of the principal mouths of the Mahanuddy, and other rivers, between the black pagoda and Kannaka. It is proper to observe, that the coast was not traced home to the black pagoda; so that the *exact* position of Point Palmiras, is yet a *desideratum*. Capt. Ritchie was informed, when at the southmost opening of the Mahanuddy, that the black pagoda, was very near, on the south-west. It was, however, out of sight; but this may be accounted for, by the form of the coast, which projects in a very large curve, and might intercept the view of the pagoda, from a person close under the shore, as Mr. Ritchie was; although the pagoda might not be many miles off. The southmost mouth or opening of the Mahanuddy is in lat. $19^{\circ} 54'$; and is supposed to be about 19 miles to the eastward of Jagarnaut pagoda. The object of this examination, was, to enable the Government of Bengal, to fix on a proper spot for a light house, for the direction of ships round Point Palmiras, and into Balasore road. Capt. Ritchie gave the preference to the point itself (named Mayaparah by the natives) but no light-house is yet erected. I believe the matter rested with the merchants of Calcutta. The reef extends near 10 miles to the E N E of Point Palmiras, in the new chart. There was too much surf on the coast to allow his boat to land, so that he could not learn the names of the few villages that are dispersed along the coast. He is pretty certain that no large river falls in between Point Palmiras and the false point.

I N D E X

T O T H E

M E M O I R.

* The Names of Countries, or Nations, are in Roman Capitals: and the Names, or Titles of Princes, Rajahs, or Chiefs, in Italic ones. The Titles of Books, and the Names of Authors, as well as of other Persons whose Authorities are quoted, or whose Assistance has been acknowledged in the Course of the Work, are in Italics: and the Names of Places belonging to Ancient Geography, have an * prefixed to them. The Roman Figures, refer to the Introduction; and the Arabic ones, to the Memoir, and Appendix.

†† Abbreviations. Terr. Territories. I. Island. R. River. Pt. Point. Mt. or Mts. Mountain, or Mountains.

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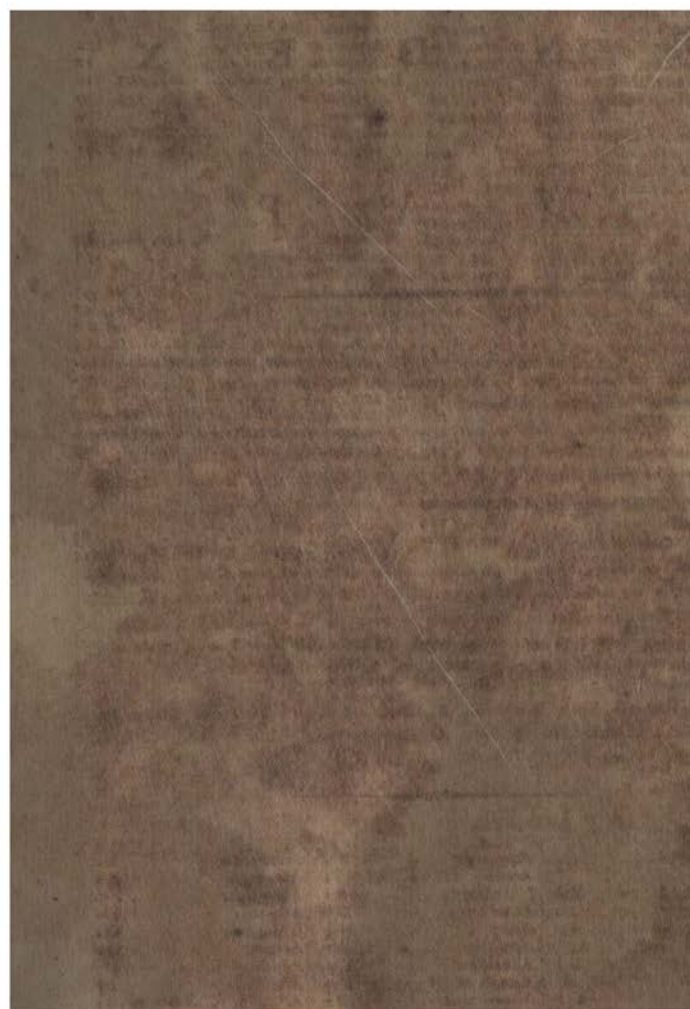
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T O T H E

M A P.

The whole Map being divided into Squares, or Spaces, by the Intersections of the Parallels of Latitude with the Meridians, each particular Square is pointed out by Letters of Reference, alphabetically arranged along the Margins of the Maps: the side Margins having Capital Letters, and the top and bottom ones, small Letters. For instance, the City of *Dacca* is given in the Index under the Letters E 6: and if the eye be guided along horizontally in the Map, from E, until it comes under 6, the Square which contains *Dacca* will be found.

The Names of Countries, or Nations, are in Roman Capitals: and those of Princes, Rulers, or Chiefs, in Italic Capitals: and such Places as have their Situation described in the Index only, and not in the Map (owing to want of room) are in Italics. Others have only a Part of their Names written in the Map: and the Part wanting, is also distinguished by Italics in this Index. The Places without Names, in the Map, are left, in expectation of being able to supply the Names, hereafter.

Abbreviations. Terr. Territories. I. Island. R. River. Pt. Point. Mt. or Mte. Mountain, or Mountains. F. Fort. G. Gair, or Fair.

A.	Acquary	S. n.	Adamnagar	h. a.
ABDALLI	Accoury	b. i.	Adenagar	B. k.
Abdoolgange	* Accines R.	B. i.	Adenampar	Z. n.
Abhofagur	Ha	D. k.	Adenpaur	F. n.
Abunga	A. n.	H. q.	Adiguango	G. z.
Abugur	Q. l.	R. r.	Adigour	Q. g.
hills	H. l.	E. p.	Adjodin	D. i.
Acharpaur	h.	Z. q.	Adj. R.	l. y.
Acharpaur	G. r.	R. r.	ADJIDSING, Town of	N. n.
	G. t.	S. p.	Adjutor	Adli.
	Adalampur			
	Adan's bridge			
	peak			
	Adareed			

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inhabiting part of Cabul		Al MORAH	P q	Anantpour	T o
and Candahar.		Alore	T p	Anantpour	T p
Aizulgor	D p	Alpout	R n	Anamingur	R n
Aganis	G t	Alva	Y n	Seantapilly	Q s
Agaron	X q	Alvar	F o	Anarodgura	A i
Agercise	A n	Alwara	G p	Aurey	O o
AGMERE	G m	Alyncotah	L i	Auchity	W o
Agmiers	h	Alono	S k	Abdeah	E p
Agger	Q m	Amanat-Kan	C k	Adicotta	Y n
Agoree	L u	Amancot	C e	Andaman I. great	W
Agurum	R s	Amanabad	E n	— little	Y
AGRA	G p	Amersautpour	F q	Andanagar. See Amekap-	
Agra	F p	Amadaban	P l	gur	
Aguda F.	S k	Amarchilita	R u	Andra-Jerba	E x
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Alambady	W o	Amcoah	K s	Ankapilly	Q u
Alena	Q s	Amawee	K k	Ankapilly	Q s
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Chetargow	Qz	Chitbar	Hx	Channah	Pa
Cheray	Lo	Chitbar	Gx	Channaricote	Hx
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Chinabackee	Gx	Chowry	Lx	Chivara	Gx
Chinampet	Zp	Chowara	Gx	Chivara	Gx
Chinampet	Uq	Chowle	Hi	Chivara	Gx
Chinam	Kx	Chowla	Lx	Chivara	Gx
Chinchouly	Px	Chowka	Lx	Chivara	Gx
Chinchelly	Gx	Chowka	Lx	Chivara	Gx
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Chingonga	Np	Chowka	Lx	Chivara	Gx
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Chinny-Arcand	Hx	Chowka	Lx	Chivara	Gx
Chinora	Lx	Chowka	Lx	Chivara	Gx
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Gopalpur	Kt	Gundell	Mg	Handiya	Gn
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Goverdan	Ga	Gurash	It	Hateenoo	Mg
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Gouluve	Lx	Gurfoot	Km	Hazipour	Ln
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Hofkora	Pe	-----	No	Jehau	Ar
Hoflamally	Lj	Jahingunge	Kd	Jehanaabad	Ha
Hoflasee	Uj	Jahnapatam	Zc	Jehaul	Ci
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Hoidipockra	Ly	Jainad	Qq	Jella	Pj
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Hulleth	Lj	Jalalabad	He	Jelafore	Mz
Hulwad	Lz	Jalengary	Re	Jeladar	Fp
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Hunary	Pj	Jallindar	Ab	----- R.	Ka
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Kellinoro	Wg	Kishah R.	Rm	-----	Gn
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Ken	Eg	KITCHWARA	Ln	Kullapollam	Se
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Kender	Co	Kivalore	Yq	Kundawilla	Pe
Kendy	Is	Kondagwah	Bh	Kungipara	Du
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Kepong R.	Qd	Kooltara	Lw	Kupporeah	Di
Kepeldeo	Xm	Koolara	In	Kupinga	Mu
Kerana	Bl	Koara	Nt	Kutech	Bt
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Kerona	Hp	Kooch	Gm	Kurra	Hp
Kerowly	Go	Koolbory	Rt	Kurragora	Lw
Kerrah	Mh	Koolcur	At	Kurly	Nm
Keroundar	Dq	Koolid	Elw	Kurtpost	Cl
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Kevaleooty	Bp	Koorah	Ln	Kutcol	Du
Kewan	In	Koorta	Ky	Kuti	Dy
Khod	Mx	Koorumba	Bl	Kutear	Cl
Khanturast	Ml	Koofanob	Cl	Kutan	Id
Khur Koté	Kg	----- Rumber	Bl	Kutubad	Cr
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Kimedy	Po	Kotcheel	Gm	-----	-----
Kinlala	Jp	Kotrebegga	Mu	-----	-----
Kirmual	Nu	Kotery	Ko	Lacracondia	Kb
Kiatarai	Qd	Kotugay	Mx	Laccadive Is.	Nt
Kiommapoer	Rl	Kotuna	En	Lachmanpur	Pa
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Kirayee	Zp	Kotul	Yp	Lachmargat	Op
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Kirkor	Fq	Kotkhoa	Ca	Lachmoota	Qu
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Mandavee	O i	Malali L.	M k	Mei L.	X z
	M k	Malforah	H z	Mehtapoor	M a
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Manalpur	H l	Malgar	H v	Mehtapoor	C o
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Metycoonda	Uo	Monartoo	Lw	Mori	Ft
Mettoucor Melloue	Nv	Monclaboo	Ll	Mormal	Sp
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Minday	Pa	Mongupatane	Om	Motpar	Mh
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Mirje, qu. <i>Morn's</i>	Fl	Montindy	O	MOULTAN	ib.
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Mirzapour	Lc	Moobad	Dr	Moutar	Wl
-----	as	MOODA/EE BOONS	Al	Mout Dilla	Wr
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Mitranpour	Ep	Mongang	Mr	Moutteah	Gr
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-----	H	Moorgul	Ql	-----	Lt
-----	Yp	Moorkya	Lw	Moorgunge	Tr
Mohady	Mr	Moordubad	Lz	Mowamilladoorn	Jd
Mohanco	Lp	Moorloo	Nw	Mowit-Gonga	Ok
Mohun	Gr	Moorde	Pm	Mowley	Rr
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Moka	So	Motran	Lo	Mudrar	Kv
Mokemo	Ly	Motapaddy	Yp	Mudgury	Pp
Mokontpur	Gr	Motapilly	Sr	Mudagur	Yc
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Mollem	Qt	Mopar	Sg	Mugadampoor	Gd
Mollidon	Fq	Morabad	Gv	Muggur	Ri
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Ner	O n	Norwengong	N q	Olong	C
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— mouth	M i	Norwong	N g	Olech	E e
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Nerwa	Z i	Norwong	G r	Olech	L y
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—	L t	Norwong	I v	Olech	N o
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Nidbatad	D p	Norwong	N o	Olech	N o
Nimico	L y	Norwong	H w	Olech	R i
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Oolandoor	Xq	RATTAS , <i>Terr. of</i> Ql		Panwell	O ₁
Oolpar	M ₁	Palamcootta	Jo	Papanad	Y _q
Oogonda	Rq	-----	Xg	Papamow	H ₁
Oorey	Hq	Palanterdy	Zp	Parachio	H _p
Oorgaum	Om	Palismow	Ky	Parachoccol	Y _p
Ootamally	Yo	Palipetty	Yp	Paradanga	H ₃
Ootampaliam	Zo	Palitoby	Yo	Paragar ruins	H _p
Ootatore	Xp	Palavai	Jq	Parandoor	Y _p
Ootoor	Go	Palmasfery	Gl	Parasoofera	S _p
Ooterawoody	Yo	Palicoot	Jo	Parasunty	X _p
Ootamalore	Wq	Palicote	Lo	Parasoli	F ₁
Orangabad	Fp	Paligango	It	Paratella	R ₁
Oreyoor	Zp	Palisapoor	It	Parchoor	H ₁
ORISSA	Nw	Palur R.	W ₁	Parpaw	H _q
Oreany	En	Palucar	Z ₁	Paridong or Paridong	L ₁
Ofets	Ey	Palapado	W _q	Parhel	Q _p
Ofloora	Rz	Palconda	S ₁	Parlayow	M ₁
Ounpour	It	-----	W _q	Pallie	N ₁
Otingbah	If	-----	Z ₁	Palmenalore	X ₁
Oudanilla	It	Palmandroery	T ₁	Palnali	H ₁
OUDE	F ₁	Palghery	T ₁	Paruel	O ₁
Oude	G ₁	Palindi	Z ₁	Parve	Y ₁
OUDEPOUR	It	PALL	K ₁	Parapel	X _p
Oudipour	R ₁	Paligoram	R ₁	Parpooty	S ₁
Oudgab	It	Palimur Pt.	N ₁	Parosh	A ₁
Oudighir	Po	PALNALD	R ₁	Parshapatnam	Z ₁
Ougein	Em	Palrodygar	E ₁	Parun	M ₁
Ougly	Rl	Palak lake	D ₁	Parusey	Z ₁
Ougoulinké	D ₁	Palvarya	F ₁	Parulooty	C ₁
Oulingingore	X ₁	Palwall	E ₁	Parur l.	Y ₁
Oumary	N ₁	Pamada	O ₁	Parur	X _p
Ouple	Pu	Pamandoor	J _p	Parwar	F ₁
Ouroor	R ₁	Pambu	D ₁	Parada	O ₁
Ourgit	Po	Pamagar	Jo	Parchwery	I ₁
Oulotta	S ₁	Pamodur	T ₁	Paroota	K ₁
-----	Lo	Pamugur	L ₁	Parogow	L ₁
Ouloor	W ₁	Pamugroody	Jo	Parogur	R ₁
Omaliam	X ₁	Pamugroody	Z _p	Paroca	H ₁
Outch	C ₁	Pamurconcat	X ₁	Paroli, or Petala	C ₁
Outor	R ₁	Panzallah	L ₁	Paronode	D ₁
Oviersing	Jo	Pantawir	Im	Parogong	G ₁
		Panchigong	Q ₁	Parisla	D ₁
		Panchipata	M ₁	Parinac	Z _p
		Panderu	Z _p	Parinour	R _p
		Pandoulir	P ₁	Parina	H ₁
		Panere	J _q	Parinora	L _p
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Ramgutta	A o	Rohou	C m	Saspor	K r
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Ramgutta	G g	Rosh	B o	Saspor	K r
Ramgutta	T o	Rosh	D p	Saspor	K r

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Saldun	P 2	Santhal	M h	Seebunge	H 2
Salapour	O 0	Sanuparah	K n	Seel	H 2
Salswaik	W r	Sanyangong	Q i	Seedly	S y
Sallarry	M p	Sasula	Q i	Seethurah	K r
Salbey	H p	Sasuketa	B o	Seekpour	H i
Salem or Selim	X p	Sauragam	O o	Seerika	K w
Saler-Mouler	N l	Sarandaga	K h	Seerpour	I a
Sali	O c	* Saranga	H e	Seer	I d
Salimpour	G w	Sarangpour	A r	Seer	E p
Sallom	X l i	Seer	K n	Seer	H w
Salli	P o	Seerpilly	T q	Seetacoon	L d
Sallourgant	P u	Seer	Q i	Seetunges R.	M h
Sallumen	M i	Seer	J y	Seetunges	Q b
Sallon	X p	Savapally	T p	Seet	C i
Selouar	A i	Sarnee	I s	Seetwah	N i
Sellette L.	O i	Sarney	P o	Seet	U n
Selbarra	K p	Sarney	O i	SEH LURUNPOUR	D o
Samber	G m	Sarney	O o	Seetpour	C o
— Salt lake of	L	Sarapour	D o	Seet	G i
Sambani	S i	Sarunam	I d	Seetpour	K o
Saminaram	Y p	Sarunam	P w	SEKS, Terra of	C i
Sami-Muram	T q	Sarun	L x	Sehun, or Salem	X p
Samucora	Q i	Sarun	I w	Seimabad	K a
Sandhyagotta	G a	Sarun	G s	Selimpour	K z
Sandhyagunge	I o	Sarun	E g	Selka	K u
Sandute	A i	Satandor	W o	Selice	L k
Sancatty	P o	Satanygur	H u	Selimpour	G w
—	P p	Sataram	V n	Selimpour	P q
Sandela	F r	Sathora	I o	Sellogour	N q
Sandole	R r	Sattara	Q k	Selton	X q
Sandy	F r	Satipour	I h	Selmann	D m
Sandry	H m	Sattagram	R i	Selmoner	E s
* Sangada	H o	Sattapalem	Q g	Selmpatam	W o
Sangapilla	T p	Sattalaganga	V p	Senadra	P k
Sangam	P p	Sattunungam	X o	Sengana	F n
—	T q	Sattun	Y p	Senke	E s
Sangamundan	A n	Savendroog	W o	Sesun	K n
Sangoor	G n	Savirpetta	E p	Sesunagar	L b
SANGARIANS	L o	Savukley	M m	Sesun	H p
Sangol	K o	Savuzah	F r	Sesun	P p
Sangorri	U m	Savud	W p	Sesun R.	I m
San	H i	Savkul	O n	Sesun	C b
Sankazy	H u	Savner	K o	Sesun	Q i
Sankerya	F p	Savre R.	M o	SERA	U n
Sankerydurgam	X o	Sav	G w	Sera	I d
Sanku	I a	Scheupotti	C p	Seer	K k
Sanku	E x	Schoori	P c	Seer	M i
SANORE	S m	Seelot	B k	Seerampour	I y
Sannre-Baatapour	L	Seelot	D o	Seer	L o
Santowly	P u	Seelum	C i	Seeragunge	H a
Santapam	P w	Seelot	K o	Seer	I s
Santap R.	O z	Seelot	E p	Seer	G q
Santapam	S k	Seelot	G r	Seer	U m
Santapam	I s	Seelot	F r	Seer	O i
Santap	M o	Seelot	G w	Seer	U m
Santa-Bombay	P w	Seelot	C n	Seer	H q
Santapata	I s	Seelot	E g	Seer	H z
Santerabary	G o	Seelot	M k	Seer	Y p
		Seelot	T q	Seer	W n
		Seelot		Seer	Sep.

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Sermatra	G 6	Shoergary	I w	Sigaram	R p
Seronge, or Strong	I p	Shoergar	F p	Sinor	M h
Sernor	P 1	-----	H p	Silah	I x
Serrit	I w	-----	I n	Silola	W n
Serryaung	I 1	Sheer Mohamed Pett	R 1	Silhet	I w
Serish	E m	Shoerpoor	E p	Sillee	K x
Serwar	H o	-----	F p	Simar	G q
Serwill	M n	Shewaya Malley	Y o	Simiya	N w
Serapour	R o	Sheshinkot	A g	Simmooh	I t
Setiana	H k	Sheloppur	W q	Sinaga	U m
Setlege R.	D 1	Shak Russell's tomb	D 1	Sinoleandy	I c
Serriavaram	Q 1	Sheshahad	F q	Sinociss	F w
Serticelang	Z 1	Suencetty	Z o	Sinokarah	M 1
Seven pagodas	W r	Shergawa	I k	Sinde R. or Indes	G f
Severodroog	Q 1	Shenusan	A c	----- (or Cally Sinde)	I o
Seurah	H z	Shenwara	Y q	SINDE SAGUR DOBAH	R 1
Sewalick Mts.	C o	Sheru	X o	SINDIA, MADAGEE, Tarr	H o
Sewan	G w	Shetargunga	U o	of	N u
Sewary	K u	Shewaga ga	Z p	Sindole	A n
SEWEL	F e	Sheragary	Z o	Sindonacory	I d
SEWESTAN	G 1	Sheralie	Y p	SINDY	X o
Sewmaddy	M c	Saewalpettore	Z o	Singaretty	V p
Sewny	L z	Shewalpettore	Z p	SINGROOM	L x
Seyr R.	M c	Shewarorah	X u	Singecodam	X o
----- Is.	A 1	Shiendouangaly	E p	Singecunda	S q
Seylone	U 1	Shingricunda	I q	Singebill	K z
Sggyeche	C a	Shionkan	Q 1	Singem	Q p
Shanabad	I 1	-----	R 1	Singemore	H z
Shanbunder	I d	Shiroo	C x	Singha	H x
Shahdara	D 1	Shival	R n	Singomaw	M 1
Shapour	B 1	Shiverapilly	P o	Singour	E 1
-----	B 1	Shivaram	Z p	Singram	G 1
Shajehan	H x	Shishanden	A 1	Singraya	Y p
Shalehangpur	E o	Sholagur	U q	Singroora	P o
-----	F 1	Shoolamboo	Y o	SINGROWLAH	A 1
-----	G 1	Shoor	C h	Singtan	V p
Shaloymalley	X o	Shoor	I p	Singer	I x and P k
Shambypatan	Y q	Shorstbad	A g	Singroclay	A 1
Shandemunglam	X p	Shypure	B 1	Singroclay	Z 1
Shangrapoy	Z o	Shidhar	I b	Singroclay	S q
Shapary	K w	Shidhar	Y n	Singroclay	A 1
Shapara	G n	SHAM, UPPER	Q 1	Singa	E x
Shakra	G p	Shamdel	T q	Singer	D w
Shid	Q 1	Shanopada	W 1	Sing	E x
Shidhor	Z q	Shidhar	A 1	Singully	I z
Shidore	A 1	Shidhar	T q	Sulan	K 1
Shidore	Z p	Shidhar	E 1	SIRNAGUR	B 1
Shawabad	H o	Shidharah	F p	Sinager	A 1
Shawunge	G 1	Shidharah	R r	Shong, or Stronge	G 1
Shewasawa	C 1	Sidacolum	U o	Shong	H 1
Shewapour	C 1	Sidacilly	G q	Shong	P 1
-----	I p	Sidhar	H o	Shong R.	C o
Shewarath	I p	Sidhar	H z	Sina	A 1
Shaye	I g	Sidhar	O x	Sinre	A 1
Shawdars	E p	Sidhar	F x	-----	A 1
Shawadpour	I d	Sidhar	I w	-----	A 1
Shawar	X q	Sidhar	B o	-----	A 1
Shawapour	H c	Sidhar	E m	-----	A 1

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Sitpour	Cg	Souanapour	Qp	Surajepour	Ga
Sitragally	Dg	Soundipour	In	Surajepour	Ha
Sittawaca	Tu	Sourah	Nn	Surajepour	Ma
Sitticote	Bt	Sourerah	Qw	Surajgarra	Hy
Situkerah	Po	Sowree	Lz	Sura	Ma
Sividurg	Qn	Sourangy	Qw	Surbilfish	Kp
Siumpour	Ch	Sowray	Iq	Surdah	La
Skeveri	To	Sugra	Gw	Surgejah	Ma
Skoz R.	Lz	Suapett	Qp	Surgarra	Ku
Songar	Rl	Subigut	Gc	Surigor	Ma
Sonak	Ti	Sockaltal	Dp	Surikets	Li
----- river	Mk	Sockerec	Iz	Suripour	Gt
Sot	ly	Sockren	Lt	Surow	My
Sotegam	Mx	Sockry	Kr	Surrool	Kz
Sotajepour	Gy	Sufferdam	Pi	Surrovy	Pa
Sotah	Cr	Sugouly	Gw	Surtooy	Da
Sotah	Ks	Sujanhee	My	Surtooy	Da
Sotah	Is	Sujatpour	Er	----- R.	Et
Sotah	Lx	-----	Id	-----	Et
Sotah	Id	Sujerna	Gp	Surtooy R.	Ki
Sotah	Ro	Sutopour	Gc	Surund	Ca
Sotah	Es	Sutakeral	Jo	Suruthi	Et
Sotah	Hi	Sukor	Ff	St. Susan's Is.	Yz
Sotah	No	Sulapour	Qn	----- river	Yz
Sotah	B/	Sultanpour	Ck	Sutapour	Hy
Sotah	Gq	-----	Gt	Sutary	Lz
Sotah	ly	-----	Ha	Sutona	Hp
Sotah	Nu	-----	Ma	Sutopour	Ma
Sotah	Kr	-----	Qo	Sutona R.	Ci
Sotah	Hi	Suman	Fq	Swally	Ma
Sotah	Hb	Sumbel	Ep	Swamry	Ta
Sotah	Qu	Sumbulpour	Ma	Swedong	Ma
Sotah	Bh	Sumilea	Ha	Sydabad	Pp
Sotah	Ji	Sumeer	Mg	-----	Hi
Sotah	Ha	Sunflier	Fw	Sydapour	Tq
Sotah	Ks	Sunaut (Pottan)	Mf	-----	-----
Sotah	Mq	Sunmooky	Kz	-----	-----
Sotah	Kx	Sunda	Pa	-----	-----
Sotah	Td	Sundaminam	To	-----	-----
Sotah	Sk	Sundeepl	Ld	Tacour	Wo
Sotah	Mq	Sunderagade	Pw	Tacpoy	Er
Sotah	Lr	Sunderbunds	Ma	Tadoul	Wp
Sotah	Ks	Sunderdoo	Ra	Tadameri	To
Sotah	Mo	Suneraipour	Ld	Tadepaty	Tp
Sotah	Hu	Sunergong, or Sonergong	Kc	Tadepoody	Qr
Sotah	Ku	Sungwa	Ol	Tabej	Ki
Sotah	Fw	Sunker	Pf	Talle R.	Nu
Sotah	Pl	----- river	Ld	Tamy	Zo
Sotah	Yq	Sunkeera	Mg	Taivram	Ma
Sotah	Ma	Sunkera	Ik	Talacot	Ar
Sotah	Rq	Sunkertur	Gx	Talamata	Xn
Sotah	Mr	Sunham	Dn	Taleonaw	Hi
Sotah	Ar	Sunnagar	Mw	Takore	Er
Sotah	Lz	Sunpat	Lo	-----	Er
Sotah	Kz	Sunund	Li	Talegong	Ql
Sotah	ly	Sunpour	Hw	-----	Pa
Sotah	Mu	Sursjepour	Es	Talepotam	Wn
Sotah	La	-----	Fq	Talgal	Up
Sotah	Qt	-----	Gf	Talngong	Xp
Sotah	-----	-----	-----	Yy	Tal-

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Tallada	Qr	Tanunah	Gt	Tikoo	Kz
Tallapour	Pa	Tavai	Tl	Tilamungulom	Wo
Tallenghe	Qu	— island	Wt	Tilbotta	Lw
Tamachind	Ht	Taurapour	Bl	Tilmano	Lh
Tamana	Rk	Taya L.	Bt	Tilwara	Kr
Tamba	Qk	Tawpaur	Eq	Tinapet	Rp
Tambercherry	Xm	Taona	Tk	Timery	Wq
Tambona	Zo	Teccha	Lk	Timerycotta	Bq
Tambray	Zn	Tee Ferg. in Pegu	Qk	Timerydugam	Wp
Tamnegam	Lr	— in Golconda	Qk	Timorygoda	Pa
Tamlook	Lz	— in Naglana	Qk	Timorgudda	Pw
Tamthuc Mts.	Az	Techet R.	Qk	Tinderco's	Xq
Tanai	Fw	Tecn. Tallow	Lk	TINEVELLY	Wo
Taneanchy	Jo	Tecfah R.	Fz	Tinevelly	Wk
Tanda-Morgong	Mz	Teebaddy	Jr	Tingam	On
Tangle	Ca	Tehaura	Dl	Tingamolly	Mi
Tangnew	Ob	Tehondfong	Fz	Tingoreally	Lz
Tanjala	Rq	Tekere	Mo	Tingorecotta	Wp
Tanichi	Yp	Telcooty	Pe	Tipara	Qu
TANJORE	Yq	Tellicherry	Xm	TIPERAH	Kz
Tanjore	Az	TILLINGANA	Pp	TIPPOO SUKTAH, Terr.	
Tankia	Dz	Tellipoly	Zt	of	Wo
Tankenny	No	Telwara	Lk	Tirumangalam	Zo
Tania	Kl	Tenasserim	Mz	Tirucor	Qk
Tanna	Os	Tengapatam	Jo	Tirumbore	Zp
Tannafar	Da	Tenou	Xq	Tiruvore	Vq
Tanore	Ym	Tetry	Gp	Tishah	Kw
Tanyong	Mq	Teppen	Ca	Titalya	Gz
Tappor	Np	Tendol	Rt	Tiwalla	Ok
Tappie R.	Ml	Teretol	Sk	Toaganally	Vp
Tarabad	Nl	Tegarry	Um	Tocapa	Zt
Taragupala	Pp	Ternally	To	Toelupour	Dr
Tatanako	Iy	Ternalla	th	Toka	Om
Tatapelly	Xo	Tetrapour	Oi	Tol-fespatam	Vq
Tarnavay	Yn	Terrigally	Hx	Tolhar	Ab
Taringatong	Ez	Terrish	Eq	Tollundy	Gz
Tarotia	Oq	Terrinagubala	Xq	Tolhani	Mm
Taranah	Kn	Tetrio	Xp	Tolre	Xq
Tarapour	Hy	Tetchar	Ca	Tombay	Qz
—	Lm	Tetish	Eq	TONDIMAN's country, See	
Tarish	Mr	Thau	Lg	Podicotta	Yp
Tattalla	Yn	Thawary	Ov	Tondinga-Matoer	Qz
Tartoor	Qg	Tatang	Nz	Tonp. shum	Wq
Tartvas	Is	Thagam	Fx	Tondow	Fz
Tatapara	Zt	Thalary	Hx	Tondy	Zq
Tatigong	Ql	Thenongown	Mz	Tongstore	Rq
Tatladon	Pl	Thewarthy	Xp	Tongolow	Nz
Tatpary	Ap	THIBET	By	Tongolor	Sc
Tataparam	Xp	Thingron	Nz	Tongpota	Qz
Tatnagar	Xq	Thora	Ha	Tongnecnew	Nz
Tatta	Id	Thora	Gn	Tontapilly	Qz
Tattamangalam	Yn	Thogar	Xq	Tontavellore	Kr
Tatdecoda	Qp	Thadec	Mz	Toodawah	Qz
—	Yp	Thelich	Gw	Tood gunia	Qz
Tatcoon	Sm	Therota	Qm	Toodry	Ti
Tatjepour	Gw	Tickery	Iw	Toong	Pk
—	Ha	Tickely	Pw	Toolece	Mh
Tatic	Wo	Ticky	Rm	Toolepour	Pa
Tatunda	Gi	Tigree	Ep	Toolly	Mz

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Tostmedin	So	Trivenulore	Xg	Untoorah	Ms
Touluc	Ly	Trumian	Yp	Upella	Pg
Toumcoot	Uo	Tubbauleh	Bk	Upella Chanderagherey	As
Toumhir	Mr	Tabeipilly	Uo	Upparah	Qs
Toungady	Vp	Tuckatpout	Lt	Uracunda	So
Toupodorty	To	Tuckea	Mg	Uratoo	Lp
Toupparpour	Fr	Tucki Hazara	Ch	Uzeccollyconda	Lo
Totar	Kw	Tuckunpou	Vs	Uregur	Zs
Totes	Is	Tuchear	Zn	Uringunge	As
Toreparah	Bl	Tuchuh	Np		
Torres Is.	Xi	Tukera	F		
Torriff	Is	Tulsh	Ks		
Torcera	Ma	Tulon	Dz		
Tortum	Xp	Tullon	Di	Vackaleer	Lp
Totavaley	So	Tullowgam	Pk	Vadacoachery	Yn
Toudlong	Dc	Tully	Mp	Vadagary	Zo
Touury	Cl	Tumishi	Zn	Vadamalorry	Yp
Touhene	Dm	Tumetto	Is	Vadai	Si
Toutomba	Ch	Tumoo	Is	Vadenagorchy	Xn
Toutmuggee birds place of		Tumuchanag	Zo	Vadonamun	Yg
Raph. Bickemajet	Lo	Tungebadra R.	Sz	Vaduc	Ch
Tounse R.	Is	Tungong	Is	Vagalon	Xg
Toutlongada	Xo	Tunaroorchy	Yp	Vaguly	Qs
Toutvacora	Un	Turbany	Fw	Vagul	Qs
Toutlgaw	Ph	Turce	Ly	Vadagodo	Cs
Toutpal	Is	Turgub	Lx	Valai R.	Sm
Toungade	Ym	Turki	Cx	Valdore	Wq
Tranquebar	Xg	Turkupour	Bh	Valegar	Xn
TRAVANCORE	Xu	Turish	Pw	Valloda	So
Travancore	So	Turpoet	Bl	Vallagam	Rz
Tticalore	Xg	Tuturash	Mz	Vannancoopan	Xg
	Xp	Turrunga	Mi	Vangole	Xp
Trickandore	Ap	Tutacora	So	Vanlambaddy	Wp
Trimantura	Xg	Tuteferia	Cl	Vanjembhar	Qs
Trimantura	Vg	Tutium	Hr	Vari	Sk
Trinipout	Vp	Tuxal	Cx	Vavre	Wp
Trinipouty	Yg	Tymareah	Kx	Vadavan	Yp
Trincou	Is	Tylarrah	Lz	Vaypar	Zp
Trinkamaly	Is			Veerapatch	Yp
Trinomaly	Wq	U.		Veh	Dz
Tripalore	Wp			Velama	Xn
Tripani	Sg	Udalla	Mg	Velangoody	Yp
Tripaloria	Uf	Udampour	Zn	Vellacherry	Zp
Tripatore	Wp	Udeoda	Cr	Vellas	Is
	Yp	Udegheerri	Tg	Vellechy	Xg
	Yg	Udeypronda	To	Villepekkonda	Qs
Teipawanom	Zp	Udear	Cr	Velloul	Mf
Teinetty	Ug	Umballa	Dm	Vellum	Yg
Teipometaire	Yn	Umburpattons	Is	Vellure	Wp
Teitany	Ud	Una	Mg	Veeastigerry	Wp
Teichinopoly	Vp	Unampilly	So		Tg
Telavali	Xn	Unawah	Ki	Vencatram	To
Telivary	Wq	Uochalair	Ep	Vendelos	As
Tripanoor	Zp	Undercore	Mz	Venire	Rz
Triwaroor	Vp	Underdengaric	Xn	Vercondalore	Ug
Triwaroor	Wq	Undret	Np	Vetmalley	Yp
Triwaroor	Vp	Unara	Go	Vercacholon	Xg
Telvelnary	Is	Unkei Tenky	Nl	Verguttoni	Pp
Trivambar	Zp	Unup-pouppy	Ks	Vermungalam	As
				Yy 2	Ver.

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A lmanchery	U q	Coibawnar	-	F n	Macowal	-	C m
Amrutthur. The same with		Cockinara	-	R i	MAKHAT. The country		
Chuckgroo	-	Daber. Implied to be the			now called BAGLANA		N h
Anappour	-	same with Loagbar near					
Aristewa	-	Macowal	-	C m	Nallipilly. It lies about a		
Rajepour	-	Davagoodam	-	R i	mile and half to the east of		
Bondarmalanka	-	Diamper. The same as Ude-			Yauam	-	R i
Bangur. This fortress was	R i	ampour	-	Z n	Owlsh or Aonsh	-	E q
situated between Owlsh and		Patree	-	I t	Pearl fishery	-	A p
Bereilly	-	Fauzilabad	-	B h	Pebkely. See Map p. 102.		
Batinda. The same as Batuir.		Gadhunda	-	U n	Palicaud. See Palicaudcherry		
Bawnagar	-	St. George's L.		S k			Y n
Behndur or Sembher	-	Golonore	-	T r	Ponaveram	-	Y o
BERAR	-	Goomgong	-	M g	Ramasseram	-	R t
Borish	-	Goondah	-	F t	RATHORE RAJPOOTS,		
Bunjarata	-	Goopygarage	-	G q	original country of		H h
Burarya	-	Gardware Pr.	-	R t	Rubak	-	P o
Cabul city. See the map at	G w	Gurwar	-	F t	Santapilly Rocks	-	Q n
page 102.		Gurymary	-	G c	Santapilly	-	ib.
Candahar city. See the map		Hendowne or Hindia	-	G o	Singhole	-	K o
at page 102.		Jagratporum	-	R i	Sinkbmar	-	K y
Chamulgondy	-	Inevaram	-	ib.	Tentacody	-	R t
Chandpoor	-	Ingeram	-	ib.	Tiffoah	-	E p
Condrapatty	-	Limbra	-	M h	Toddipoondy	-	R t
Coringa	-	Loagbar. In the neighbour-			Tomarum	-	Q n
	R t	hood of Macowal	-	C m			

ADDENDA, & ERRATA.

INTRODUCTION.

- Page xxiv. line 2 from bottom, read, *and it will also prove, &c.*
 — xlvii. line 1. read *then*.—line 10, for *Shahrattar*, read, *founder of the Marhatta State, Sahib adou, &c.*
 — xlix. line 11. for *So*, read *as*.
 — li. line 9 from bottom, after *Shahrattar*, read (or rather that of *MARHAT*)
 — liii. line 11. read 1576.
 — lvi. add a note on *Farishta**, line 14. [*That is to say, in his history of Hindoo-
 STAN; for in that of the Durrani, he speaks very fully on the subject: but this
 latter has never yet been published in any European language. See note p. lxxix.]
 — lvii. line 7. read *Shah*
 — lviii. line 18, after *Shah*, add the comma
 — lx. line 9 from bottom, for 1627, read 1628
 — lxi. Aurungzeb was the third son of Shah Jehan
 — *Shah*, and throughout, for *Seyages* read *Sevages*
 — lxiii. line 8. read *second*
 — lxiv. The note refers to *Jewan Bado*; not *Shah Adou*
 — lxx. line 1 from bottom, *do* [he]
 — lxxv. line 19. read *afterwards*
 — cxi. line 9. read *Shah*
 — cxiii. note, for 11,050, read 11,050
 — cxiv. line 3. to the same, add, for pounds sterling
 — cxix. note on "*extending his conquests*," line 6. [*The last accounts from India,
 inform us, that Sindia had been defeated by the confederated Rajpoots, on the side
 of Jyenzgur and Jodhpour: and that in consequence, he had retreated southward
 to Gwalior. They add, moreover, that the nominal Mogul, Shah Aulum, had
 taken the opportunity of escaping from Sindia's camp, to the Rohilla Chief of
 Saharunpour.]
 — cxxvii. line 10 from bottom, read *per annum*

MEMOIR.

- Page 10. line 2, after *lengths*, read, *the measurement giving 7° north west, &c.*
 — 12. line 4. read, *a flat coast nearly straight*
 — *the*, last line, for *them*, read *it*
 — 14. line 1. for *their*, read *its*
 — 15. note, read *Shah*
 — 22. line 20. read *the*
 — 31. line 6 from bottom, read 72° 36', and 72° 40'
 — 32. note, read *after* *sculptures* cut out of the rock
 — 62. line 7 from bottom, read *Pryang, or Peng*
 — 66. line 9. [It appears that ancient Delhi stood on the same side of the Jumna, with
 the present city of that name. B.]
 — 68. line 16. [The map in question, was drawn by Lieut. Rind, of the Bengal es-
 tablishment: as well as that of the roads in the Dobah, mentioned in page 66. B.]
 — 71. line 19, *the* [western]
 — 78. line 9 from bottom. [Moulta city, has been garrisoned by the King of Can-
 dahar, since 1779. B.]
 — 81. and throughout, read *M. Patis de la Croix*

ADDENDA, & ERRATA.

Page 89. **BATHIE.** [This place is also named **BATHINDA**, by the people of the Panjab. It is situated in a country famous for pastures; and fine horse. B.] For this, and for the rest of the notes marked B, I am indebted to Major James Browne of the Bengal establishment.

- 90. line 2, for *them*, read *them*
- 96. line 9, for *in*, read *on*
- 97. line 6, read [was *not* divided]
- 102. In the map, read *Rasool* river
- 119. second note, read *the ancient*
- 117. line 5, *Gowans*. There is a district of the name of *Gowans*, in this quarter.
- 125. line the 1st, read *as the Persian standard*
- 134. line 19, read *and between Belur, &c.*
- 135. line 6 from bottom, read *between Dillah and Purnah*
- 151. line 7 from bottom, for *the river*, read *it*
- 174. last line, put a period, after authority
- 175. line 19, read *journey*
- 176. line 3, after *see*, read *in the next*
- 182. line 12, for *not* read *it*
- 190. line 8, read *some figures*
- 193. line 21, for *Now*, read *But*
- 223. line 3, for *seventy*, read *thirty*
- 289. last line, read *Global*
- 291. line 2, read *under the perfect empire of the deity, &c.*
- *Ibid.* note, line 1, for *the*, read *it*



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